

NASA-CR

(NASA-CR-165562-Vol-2) YF 102 IN-DUCT
COMBUSTOR NOISE MEASUREMENTS WITH A TURBINE
NOZZLE, VOLUME 2 Final Report (Avco
Lycoming Div.) 232 p HC A11/MF A01 CSCL 20A

N82-21032

Unclas
G3/71 09376

**FINAL REPORT
VOLUME II**

**YF 102 IN-DUCT COMBUSTOR
NOISE MEASUREMENTS
WITH A TURBINE NOZZLE**

by
Craig A. Wilson
and
James M. O'Connell

AVCO LYCOMING DIVISION
550 South Main Street
Stratford, Connecticut 06497

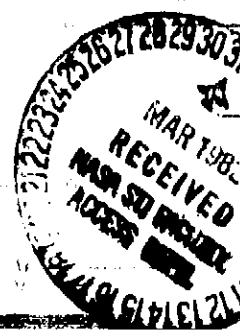
Prepared For

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

SEPTEMBER 1981

CONTRACT NAS 3-21974

NASA LEWIS RESEARCH CENTER
Cleveland, Ohio



APPENDIX B

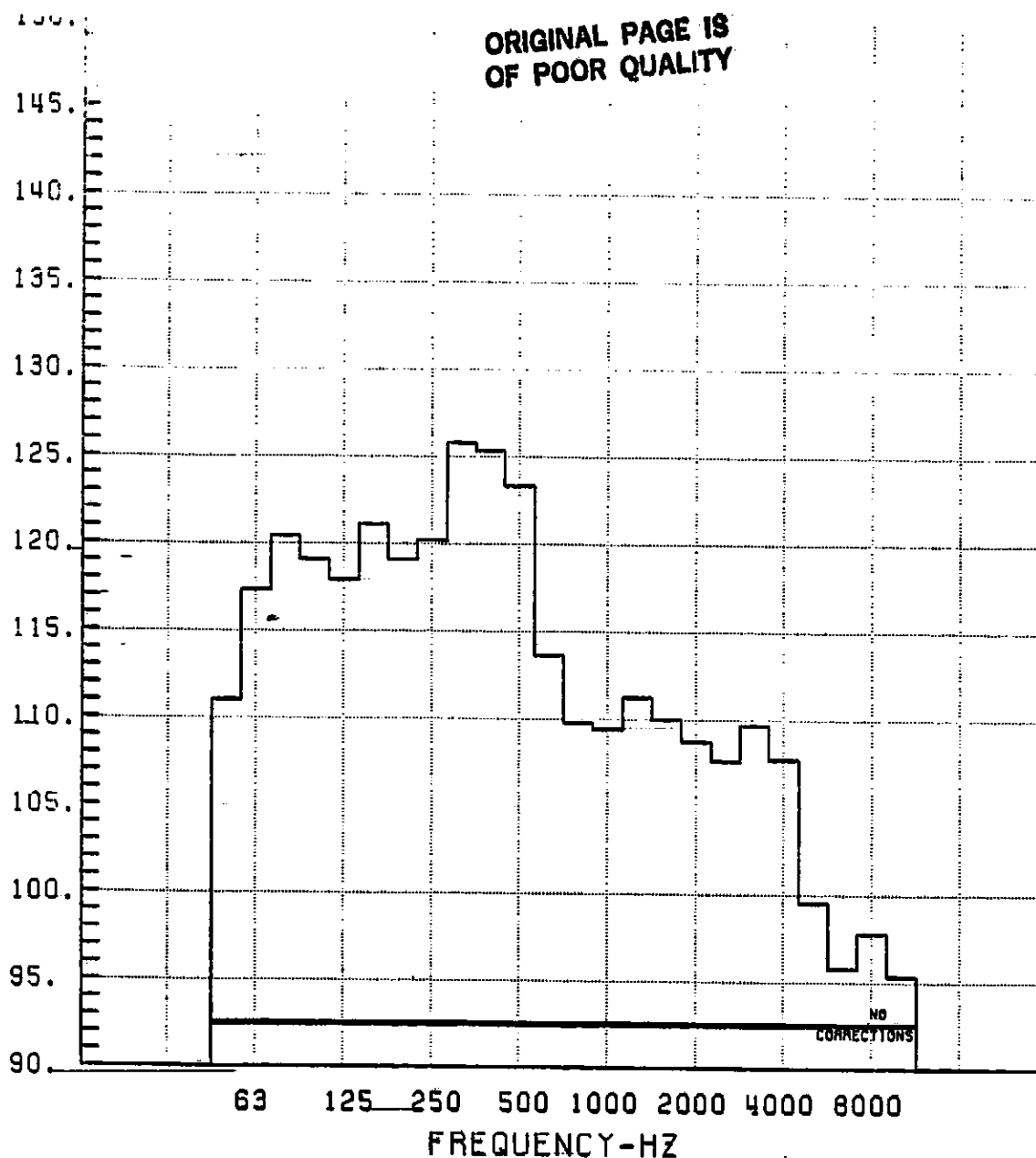
ONE-THIRD OCTAVE BAND PRESSURE LEVEL SPECTRA

<u>Group</u>	<u>Pt3 (psia)</u>	<u>Run Number</u>	<u>Off-Design Wf/Wa (%)</u>
I. YF102 Operating Points with nozzle guidevaness	16	136	-
	20	132	-
	27	133	-
	37	102	-
	45	103	-
	54	106	-
	64	107	-
	80	110	-
II. YF102 High-Pressure Heat Release Rate Variation with nozzle guidevaness	65	105	0
	54	112	50
	54	138	75
	54	137	125
	54	113	150
III. YF102 Low-Pressure Heat Release Rate Variation with nozzle guidevaness	16	131	50
	16	134	75
	16	135	125
IV. YF102 Operating Points without nozzle guidevaness	16	236	-
	20	232	-
	27	233	-
	37	202	-
	45	203	-
	54	206	-
	64	207	-
	80	210	-
V. YF102 Zero Fuel Flow without nozzle guidevaness	54	205	-

APPENDIX B

GROUP I

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=110.4 KPA (16.0 PSIA), COMB EXIT TEMP=1052.5 DEG C (1926.5 DEG F)

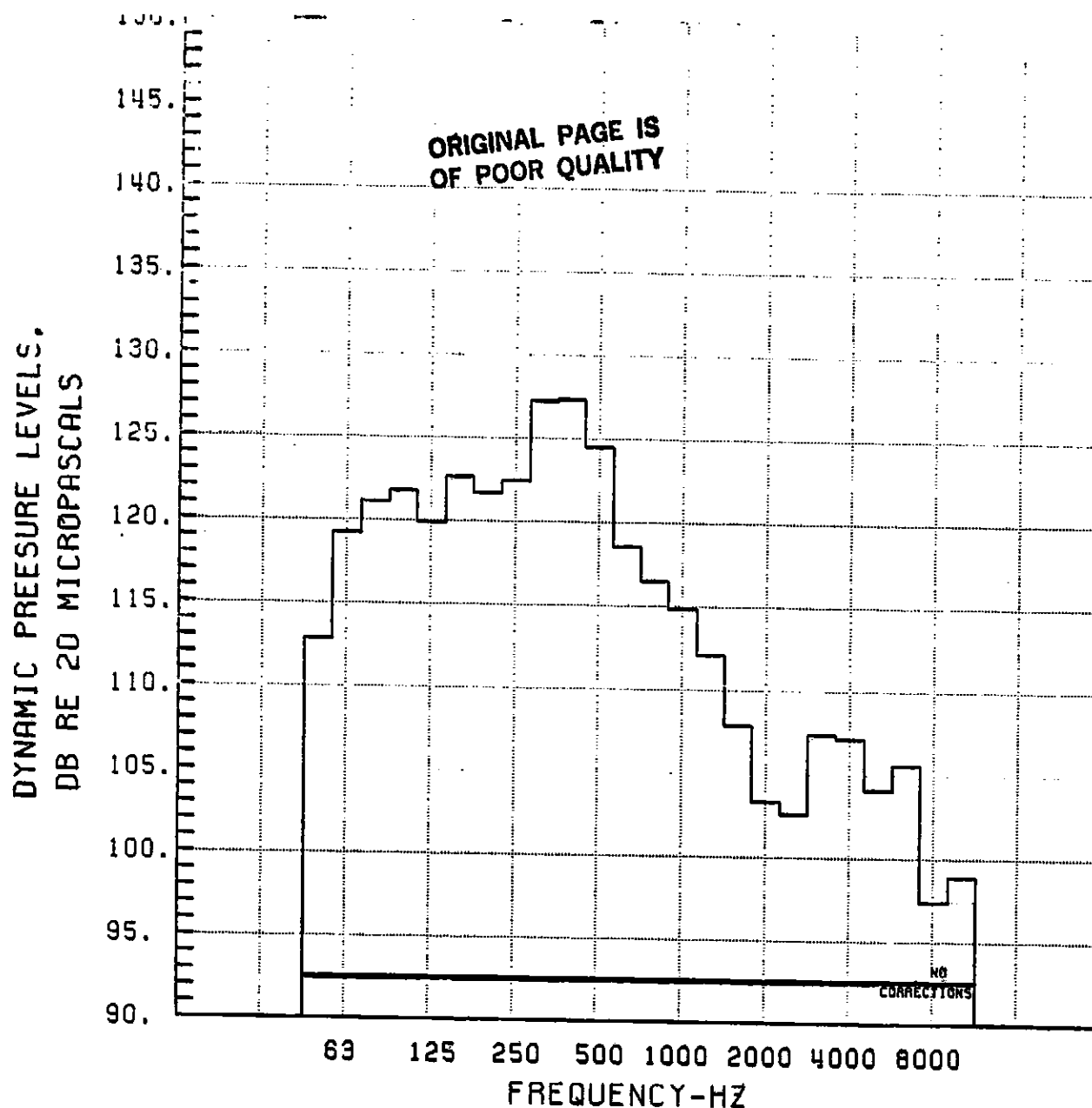
AIR FLOW= 0.80 KG/SEC (1.765 #/SEC), FUEL FLOW= 78.1 KG/HR (172.1 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 1.

GROUP NUMBER: 1

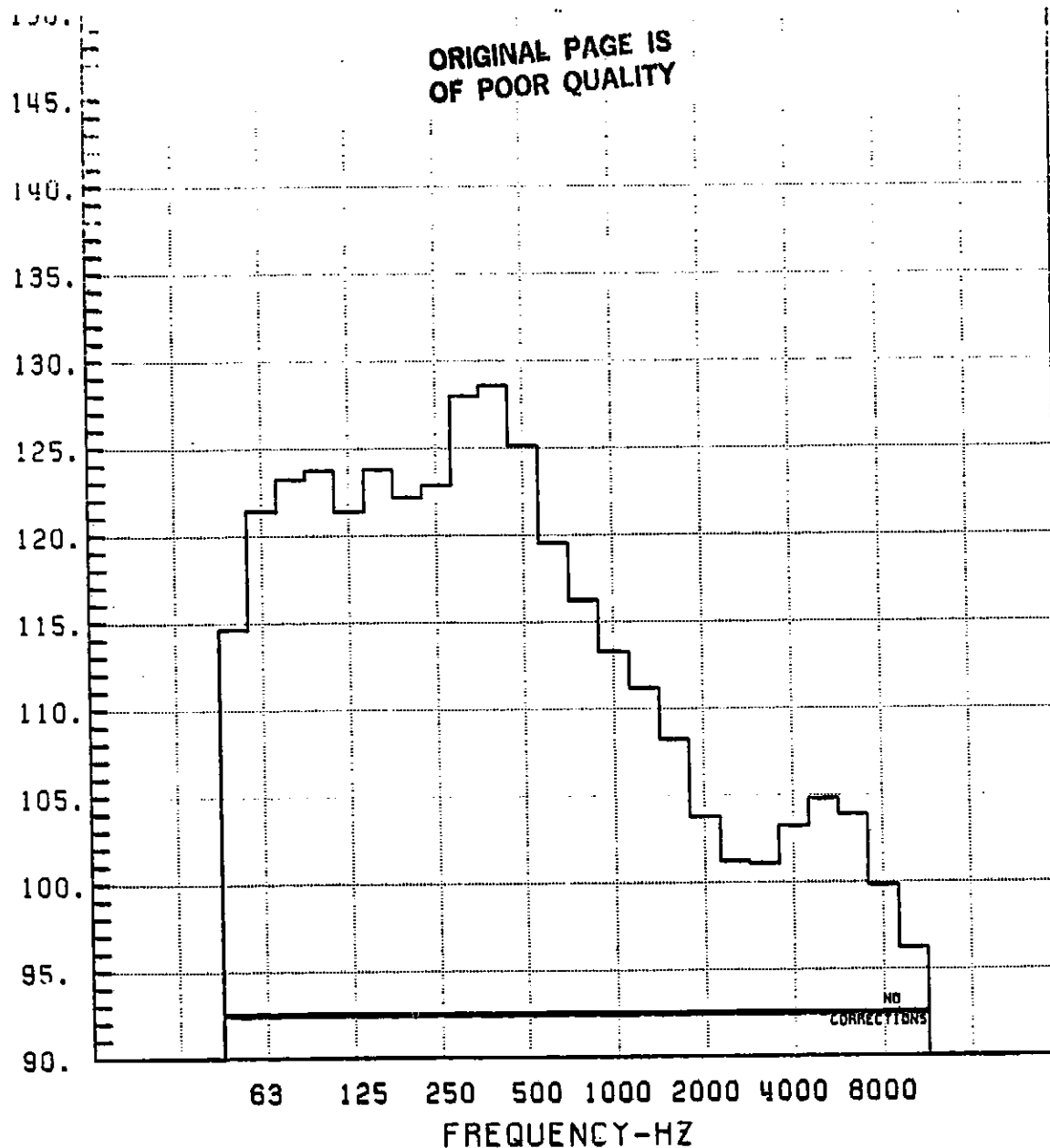
RUN NUMBER: 136



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=110.4 KPA(16.0 PSIA), COMB EXIT TEMP=1052.5 DEG C(1926.5 DEG F)
AIR FLOW= 0.80 KG/SEC(1.765#/SEC), FUEL FLOW= 78.1 KG/HR(172.1 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 2. GROUP NUMBER: 1 RUN NUMBER: 136

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497.
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=110.4 KPA(16.0 PSIA), COMB EXIT TEMP=1052.5 DEG C(1926.5 DEG F)

AIR FLOW= 0.80 KG/SEC(1.765#/SEC), FUEL FLOW= 78.1 KG/HR(172.1 #/HR)

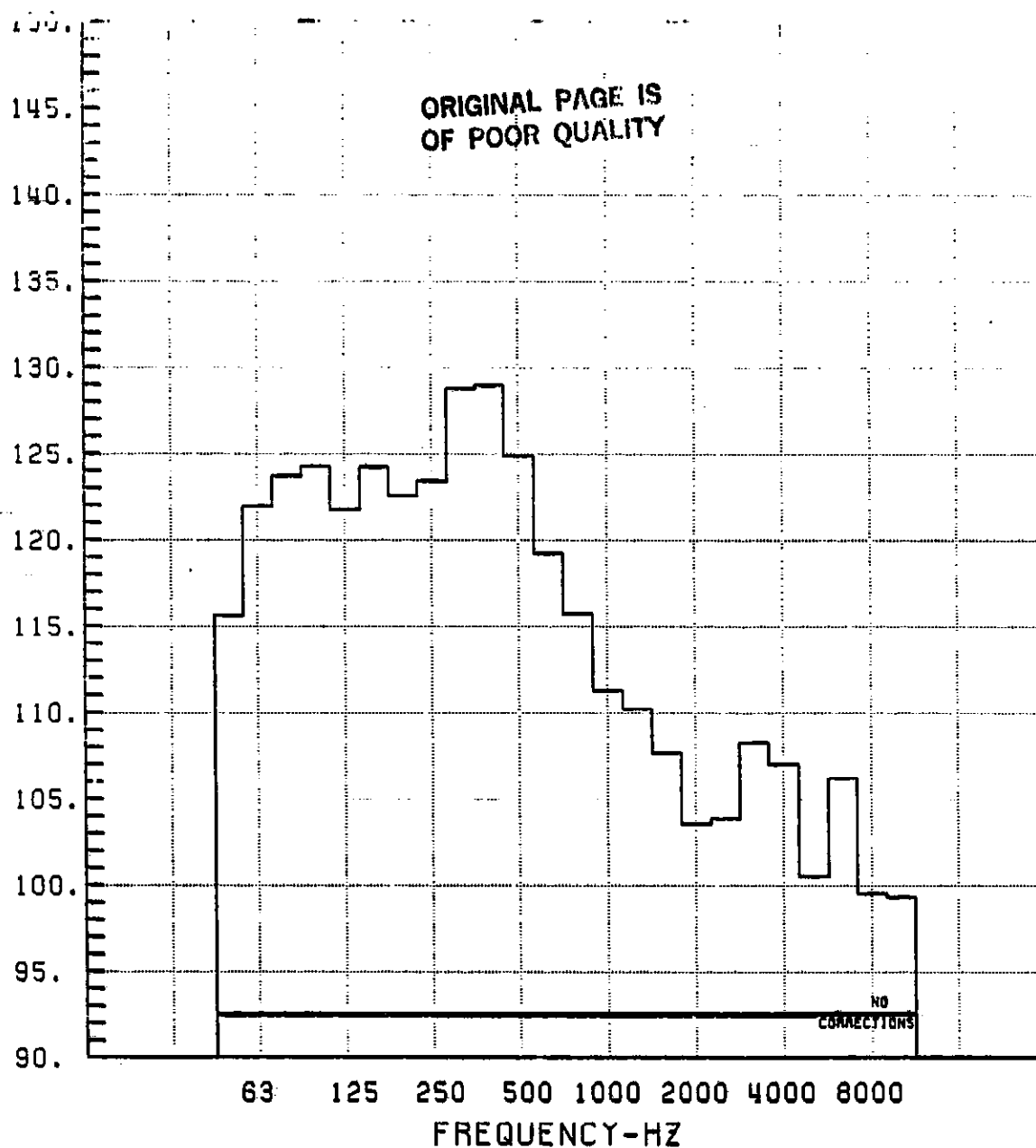
TEST DATE: FEB. 22, 1981

PROBE NUMBER: 3.

GROUP NUMBER: I

RUN NUMBER: 136

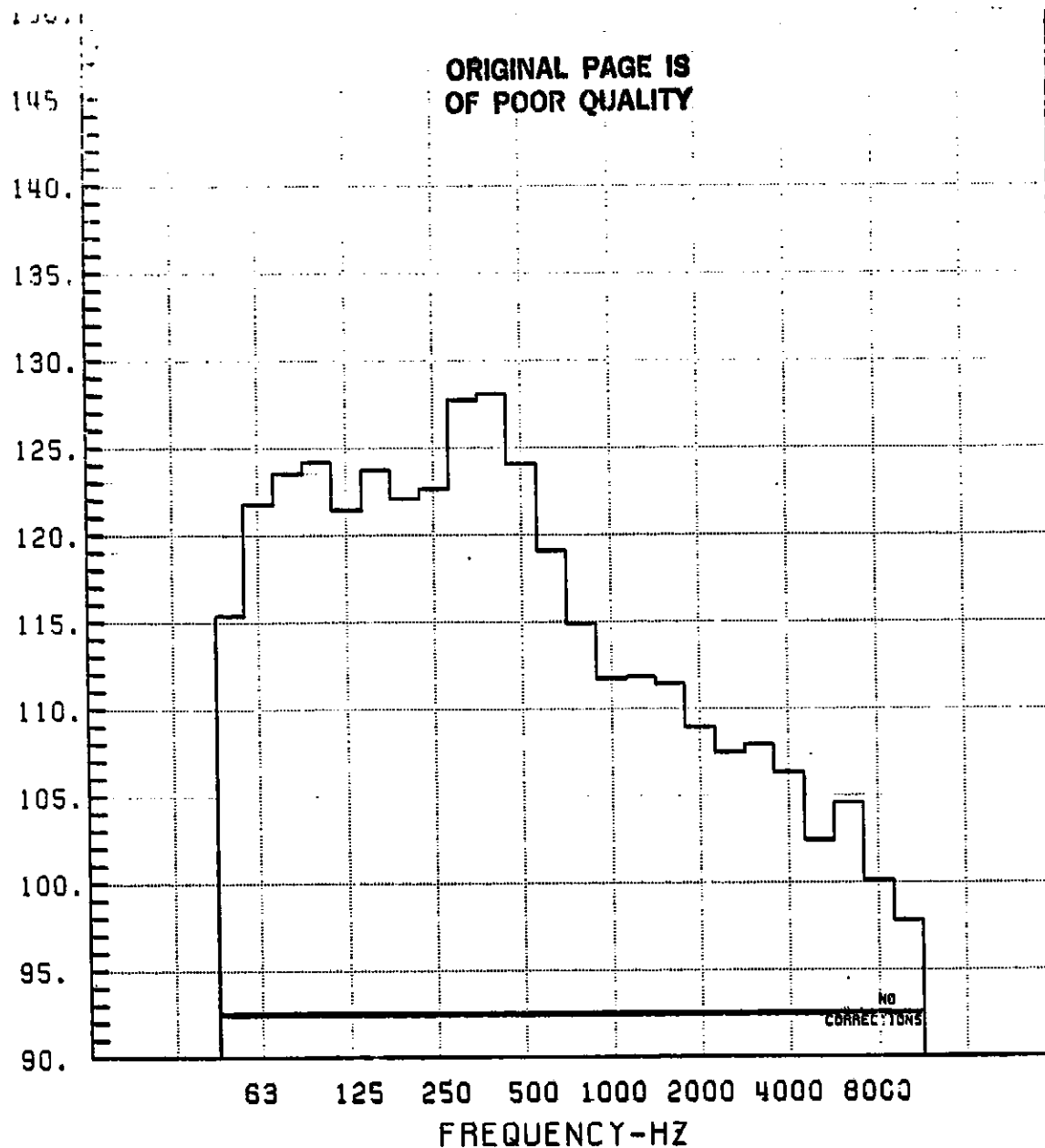
DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=110.4 KPA(16.0 PSIA), COMB EXIT TEMP=1052.5 DEG C(1926.5 DEG F)
AIR FLOW= 0.90 KG/SEC(1.765#/SEC), FUEL FLOW= 78.1 KG/HR(172.1 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 4. GROUP NUMBER: I RUN NUMBER: 136

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=110.4 KPA(16.0 PSIA), COMB EXIT TEMP=1052.5 DEG C(1926.5 DEG F)

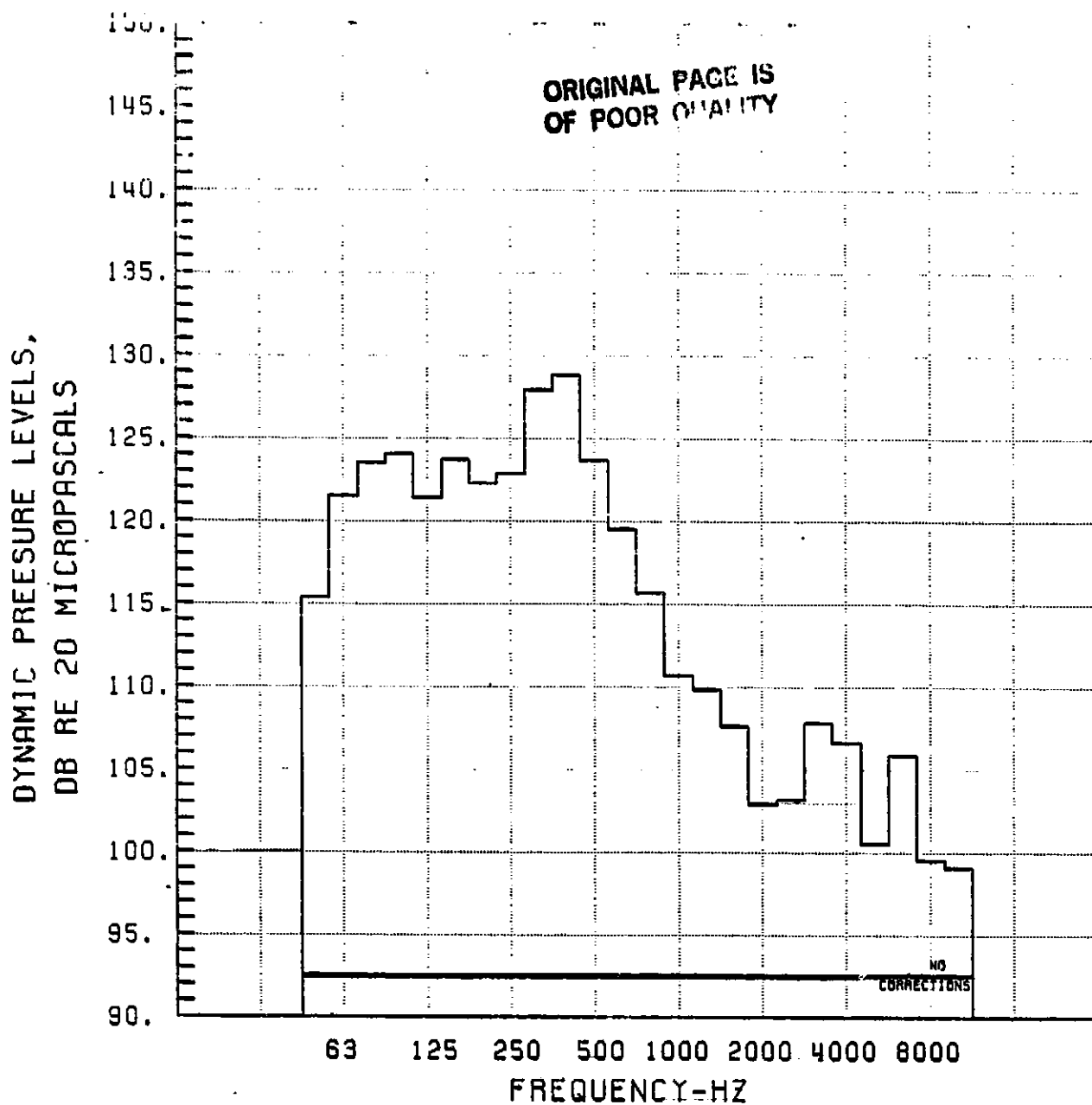
AIR FLOW= 0.80 KG/SEC(1.765#/SEC), FUEL FLOW= 79.1 KG/HR(172.1 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 5.

GROUP NUMBER: 1

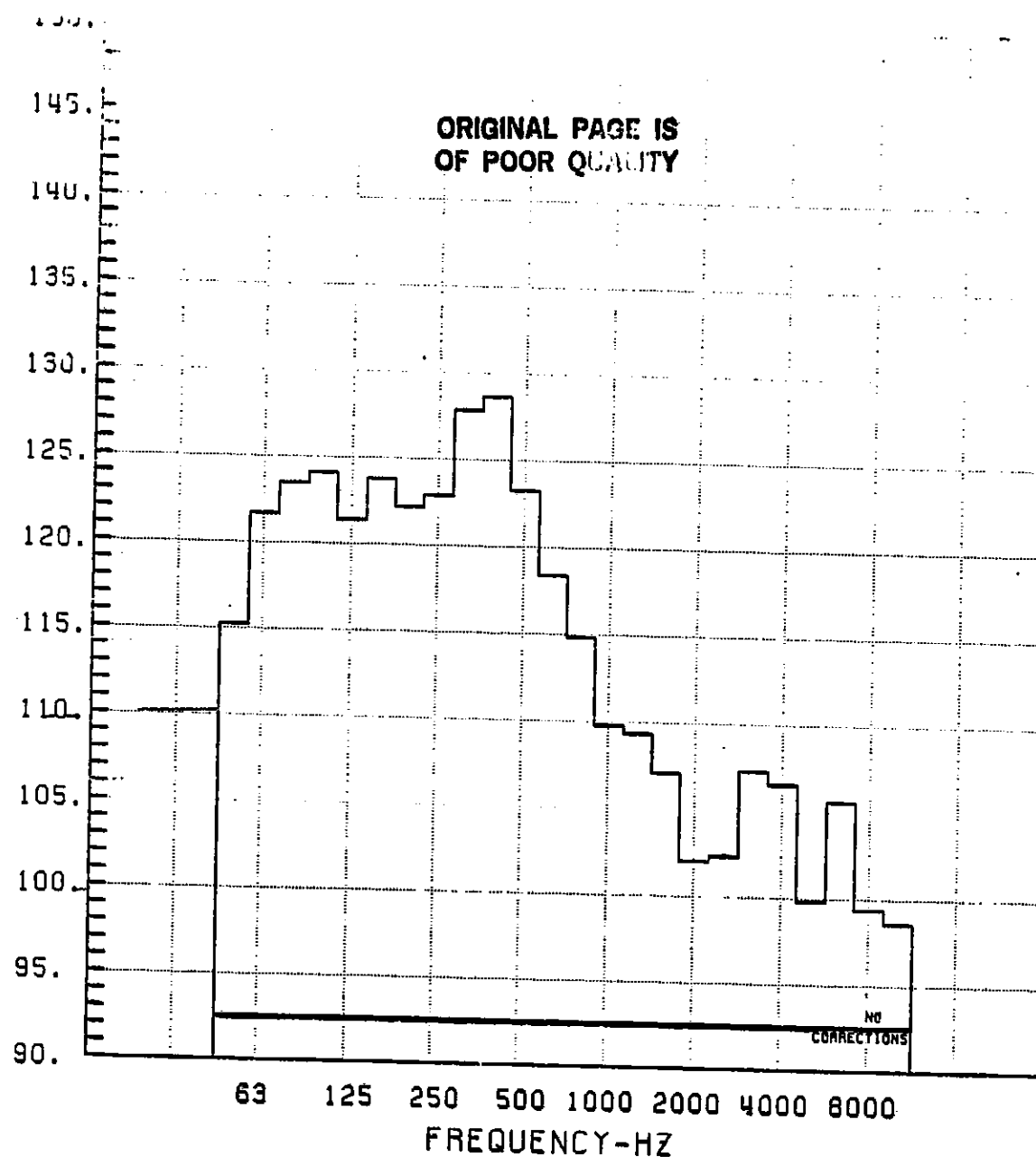
RUN NUMBER: 136



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: TF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=110.4 KPA(16.0 PSIA), COMB EXIT TEMP=1052.5 DEG C(1926.5 DEG F)
AIR FLOW= 0.80 KG/SEC(1.765#/SEC), FUEL FLOW= 78.1 KG/HR(172.1 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: G. GROUP NUMBER: I RUN NUMBER: 136

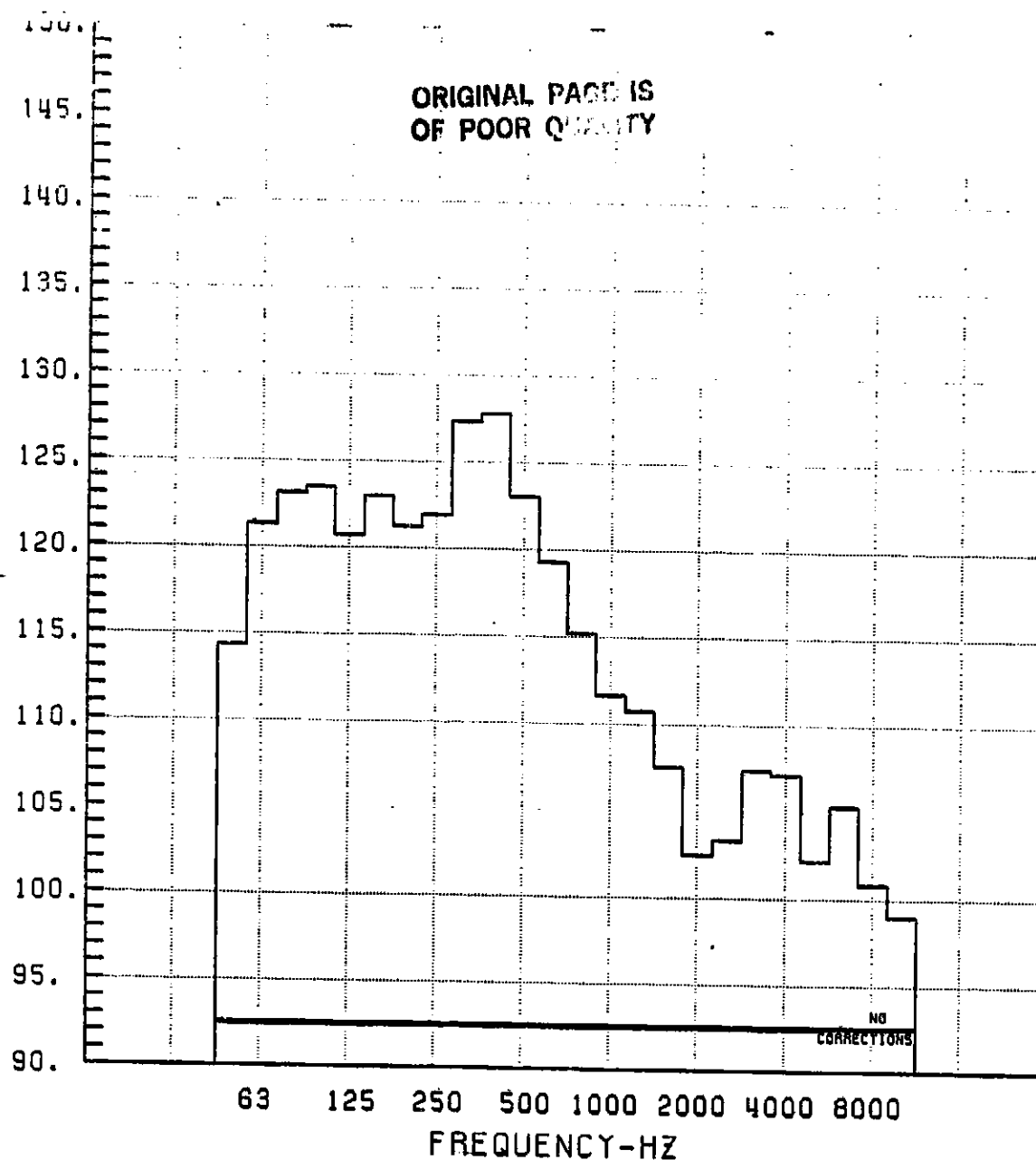
DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

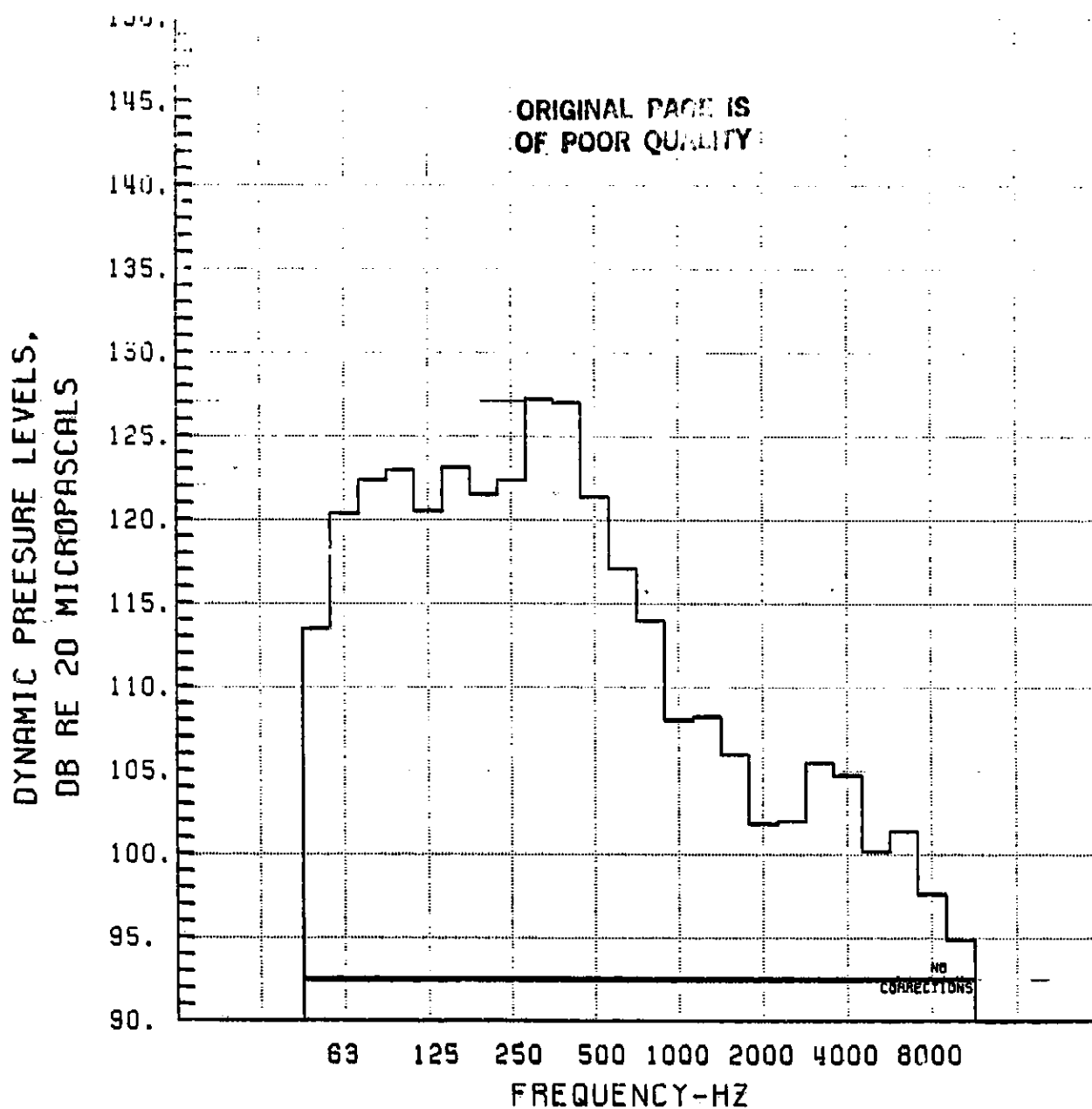
TITLE: TF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=110.4 KPA(16.0 PSIA), COMB EXIT TEMP=1052.5 DEG C(1926.5 DEG F)
AIR FLOW= 0.80 KG/SEC(1.765*/SEC), FUEL FLOW= 78.1 KG/HR(172.1 */HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 7. GROUP NUMBER: 1 RUN NUMBER: 136

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=110.4 KPA(16.0 PSIA), COMB EXIT TEMP=1052.5 DEG C(1926.5 DEG F)
AIR FLOW= 0.80 KG/SEC(1.765#/SEC), FUEL FLOW= 78.1 KG/HR(172.1 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 8. GROUP NUMBER: I RUN NUMBER: 136



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: F-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=110.4 KPA(16.0 PSIA), COMB EXIT TEMP=1052.5 DEG C(1926.5 DEG F)

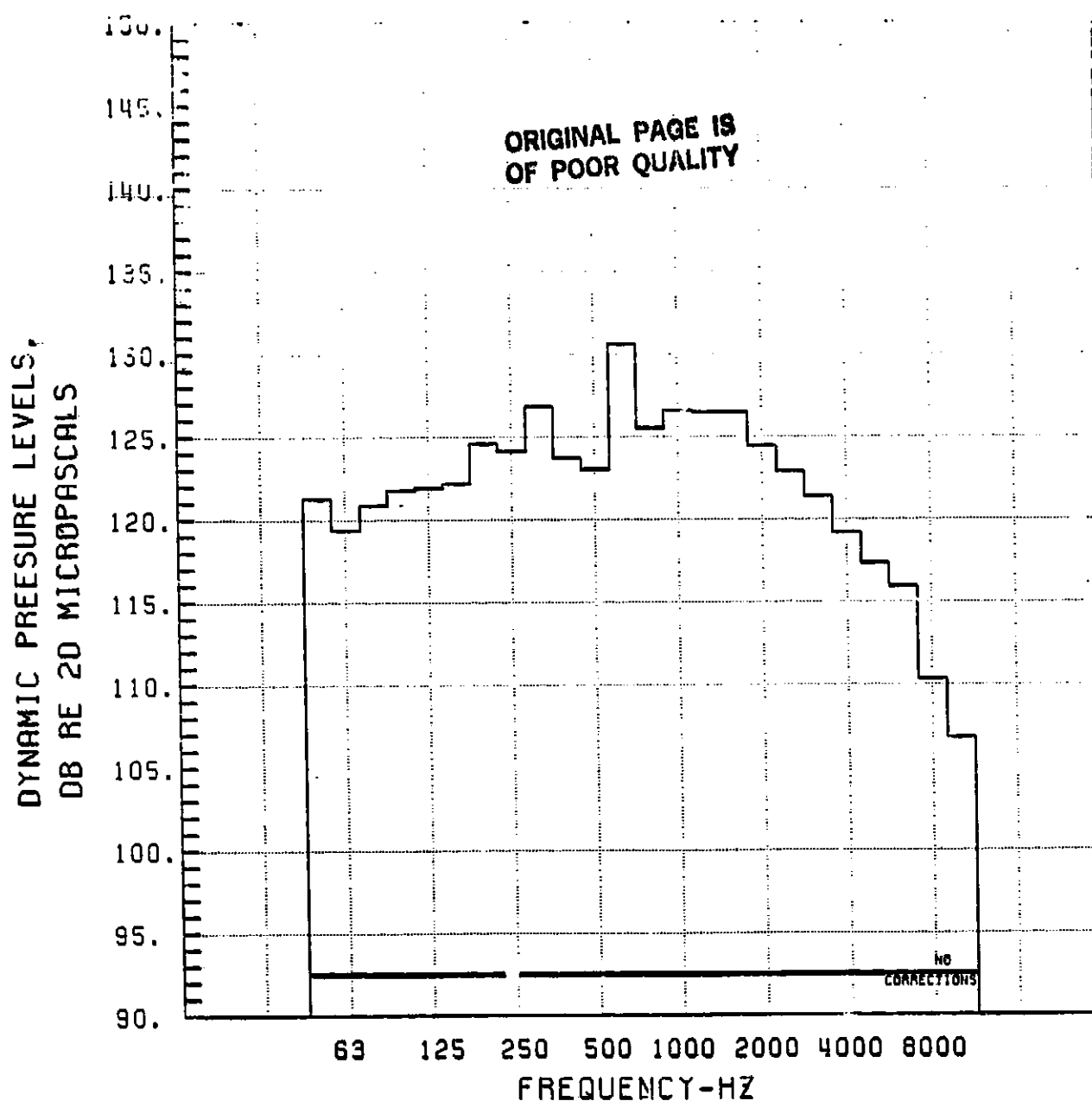
AIR FLOW= 0.80 KG/SEC(1.765#/SEC), FUEL FLOW= 78.1 KG/HR(172.1 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 9.

GROUP NUMBER: I

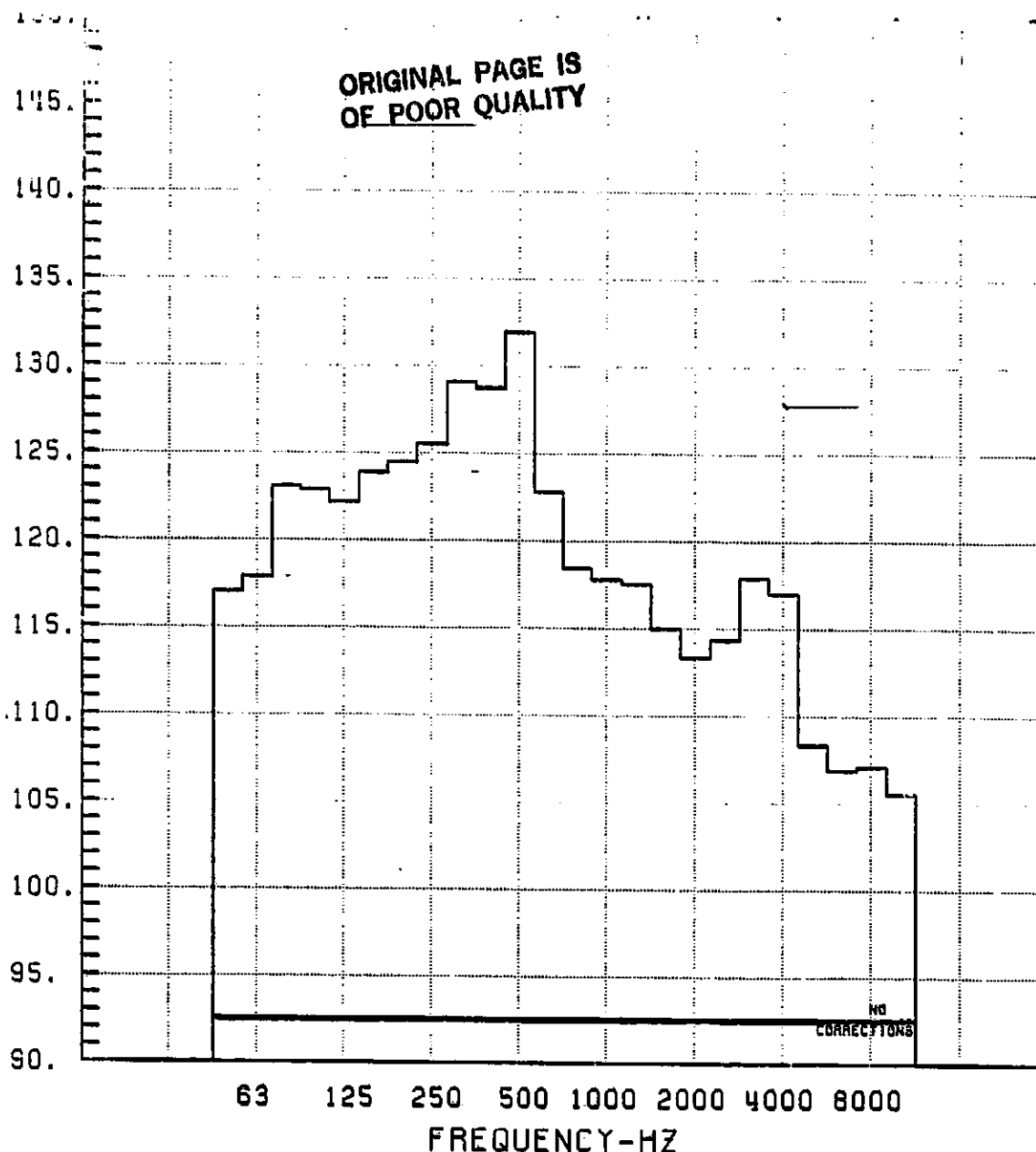
RUN NUMBER: 136



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=110.4 KPA(16.0 PSIA), COMB EXIT TEMP=1052.5 DEG C(1926.5 DEG F)
AIR FLOW= 0.80 KG/SEC(1.765 #/SEC), FUEL FLOW= 78.1 KG/HR(172.1 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 10. GROUP NUMBER: I RUN NUMBER: 136

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=138.5 KPA(20.1 PSIA), COMB EXIT TEMP=1076. DEG C(1968.2 DEG F)

AIR FLOW= 1.32 KG/SEC(2.92*/SEC), FUEL FLOW=133.2 KG/HR(293.7 */HR)

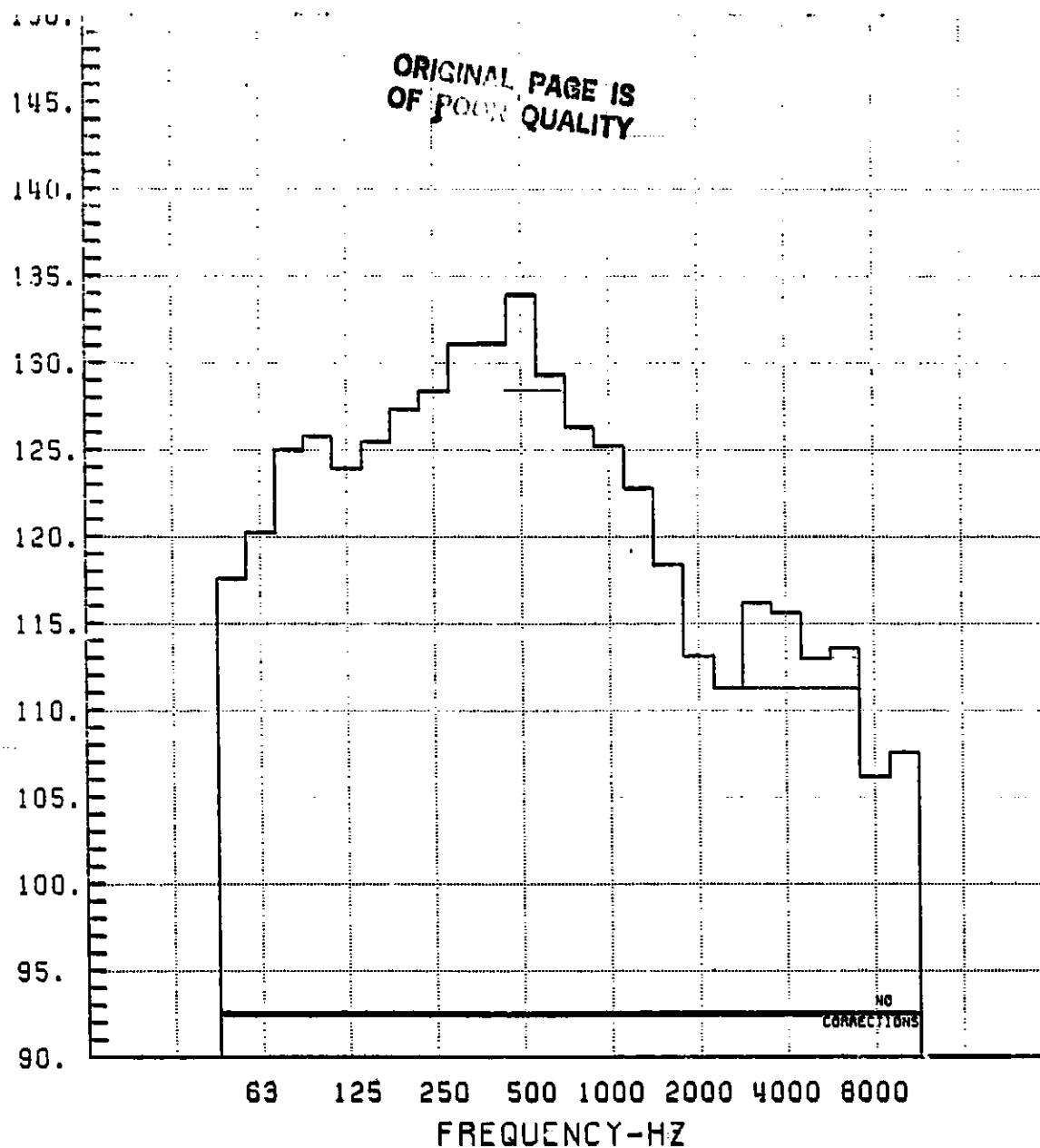
TEST DATE: FEB. 22, 1981

PROBE NUMBER: 1.

GROUP NUMBER: I

RUN NUMBER: 132

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=138.5 KPA(20.1 PSIA), COMB EXIT TEMP=1076. DEG C(1968.2 DEG F)

AIR FLOW= 1.32 KG/SEC(2.92*/SEC), FUEL FLOW=133.2 KG/HR(293.7 */HR)

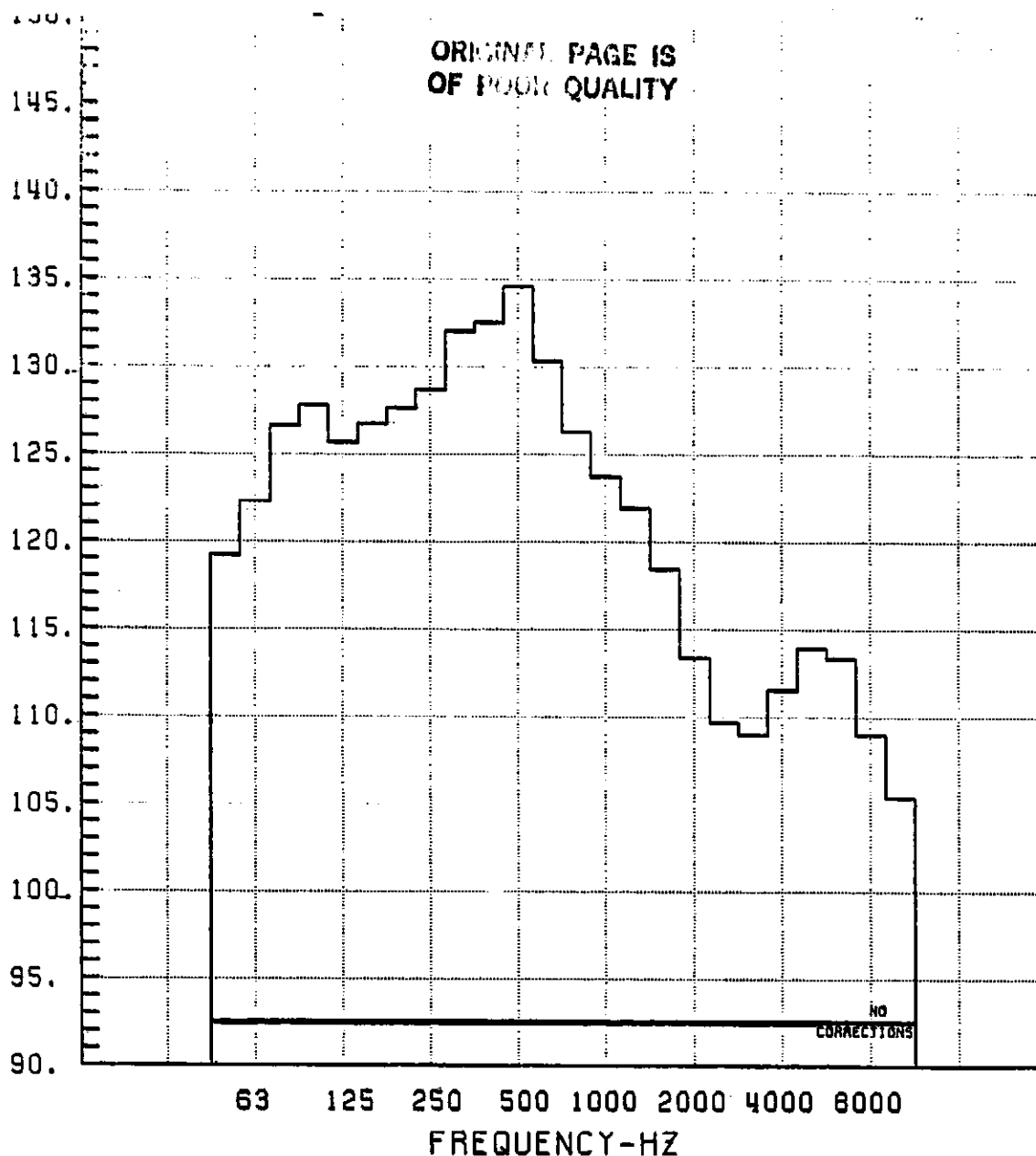
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PROBE NUMBER: 2.

GROUP NUMBER: 1

RUN NUMBER: 132

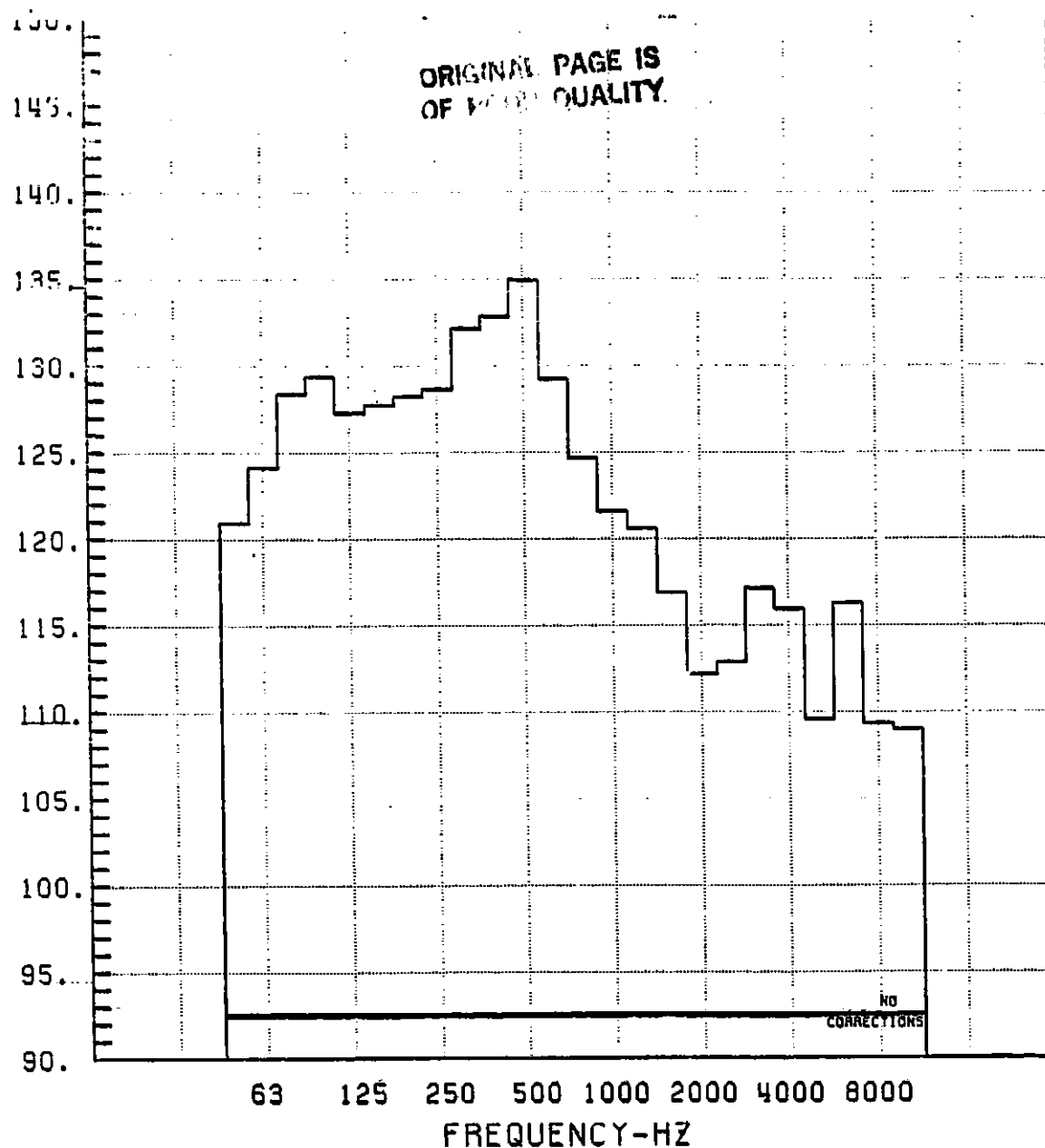
DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=138.5 KPA(20.1 PSIA), COMB EXIT TEMP=1076. DEG C(1968.2 DEG F)
AIR FLOW= 1.32 KG/SEC(2.92#/SEC), FUEL FLOW=133.2 KG/HR(293.7 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 3. GROUP NUMBER: 1 RUN NUMBER: 132

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=139.5 KPA(20.1 PSIA), COMB EXIT TEMP=1076. DEG C(1968.2 DEG F)

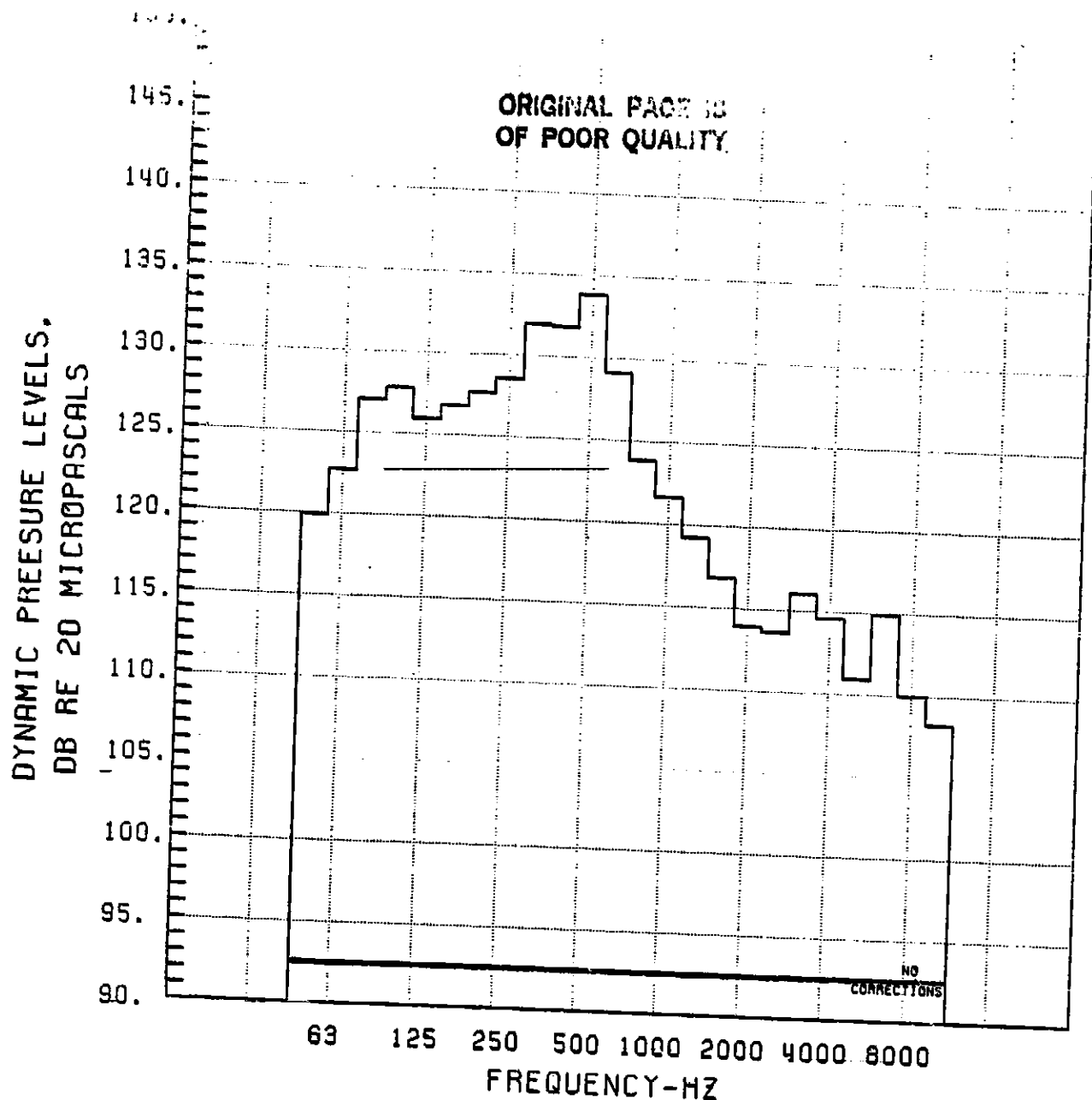
AIR FLOW= 1.32 KG/SEC(2.92#/SEC), FUEL FLOW=133.2 KG/HR(293.7 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 4.

GROUP NUMBER: 1

RUN NUMBER: 132



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=138.5 KPA (20.1 PSIA), COMB EXIT TEMP=1076. DEG C (1968.2 DEG F)

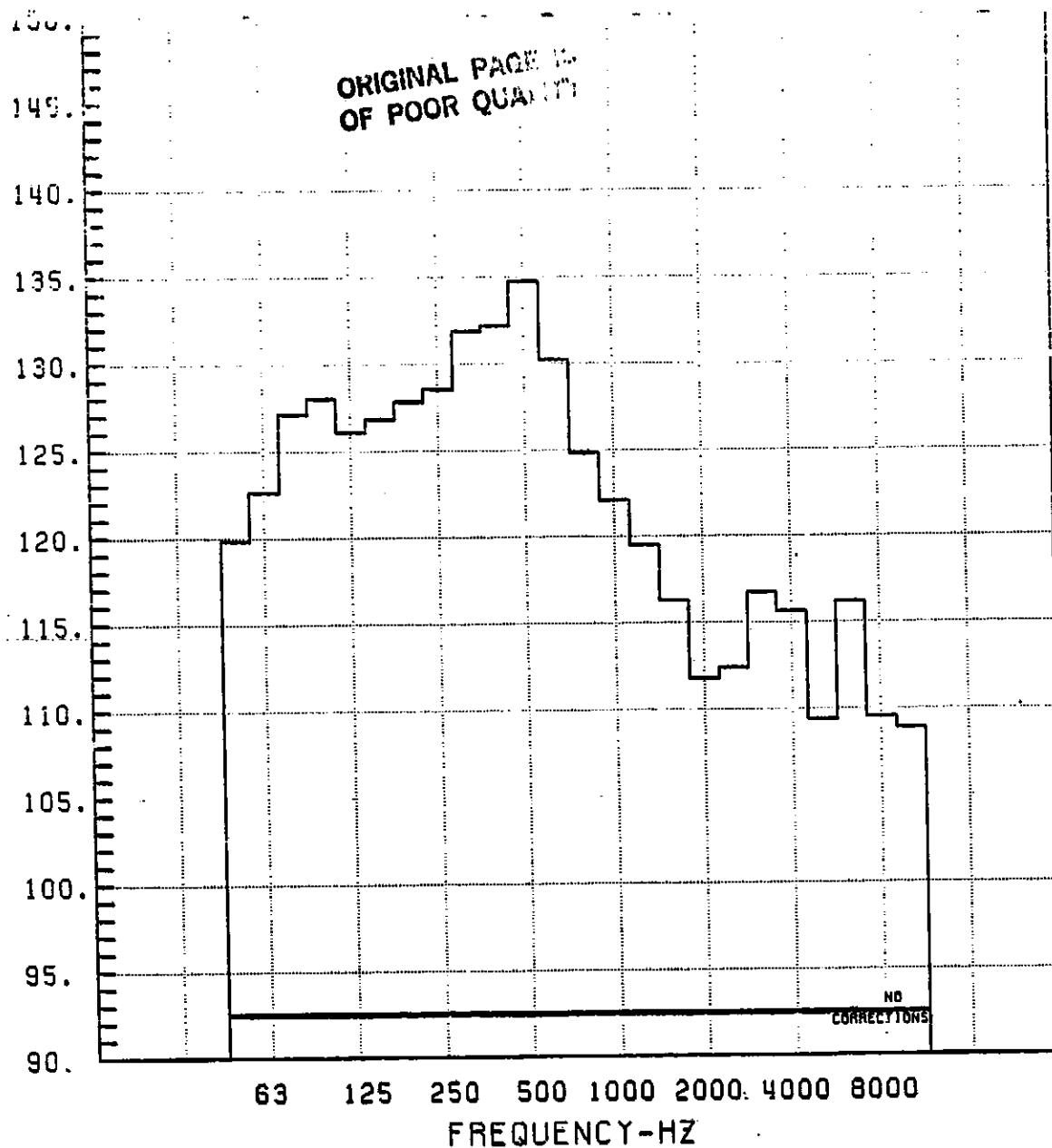
AIR FLOW= 1.32 KG/SEC (2.92*/SEC), FUEL FLOW=133.2 KG/HR (293.7 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 5. GROUP NUMBER: I

RUN NUMBER: 132

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=138.5 KPA(20.1 PSIA), COMB EXIT TEMP=1076. DEG C(1968.2 DEG F)

AIR FLOW= 1.32 KG/SEC(2.92*/SEC), FUEL FLOW=133.2 KG/HR(293.7 */HR)

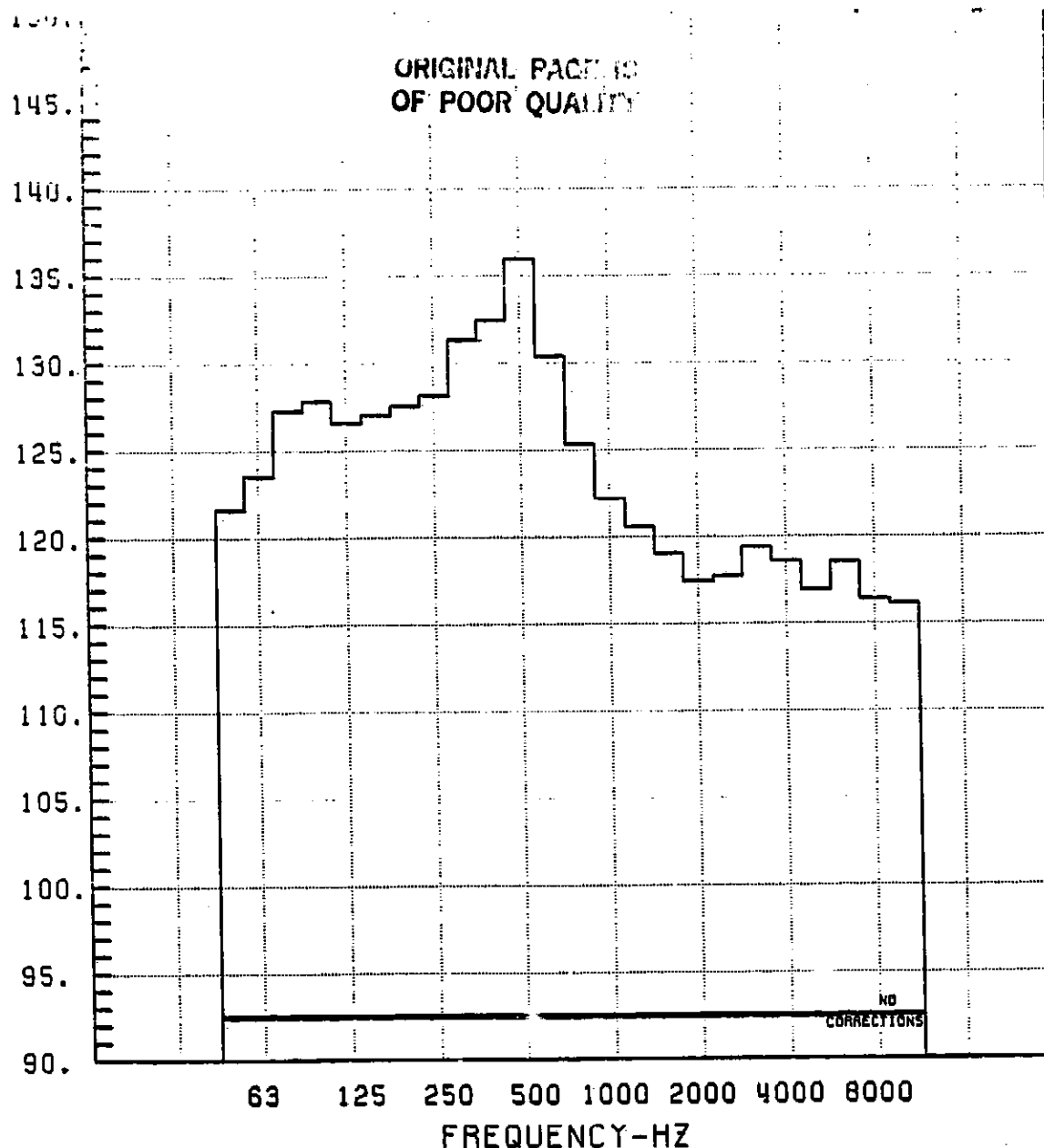
TEST DATE: FEB. 22, 1981

PROBE NUMBER: 6.

GROUP NUMBER: 1

RUN NUMBER: 132

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=138.5 KPA (20.1 PSIA), COMB EXIT TEMP=1076. DEG C (1968.2 DEG F)

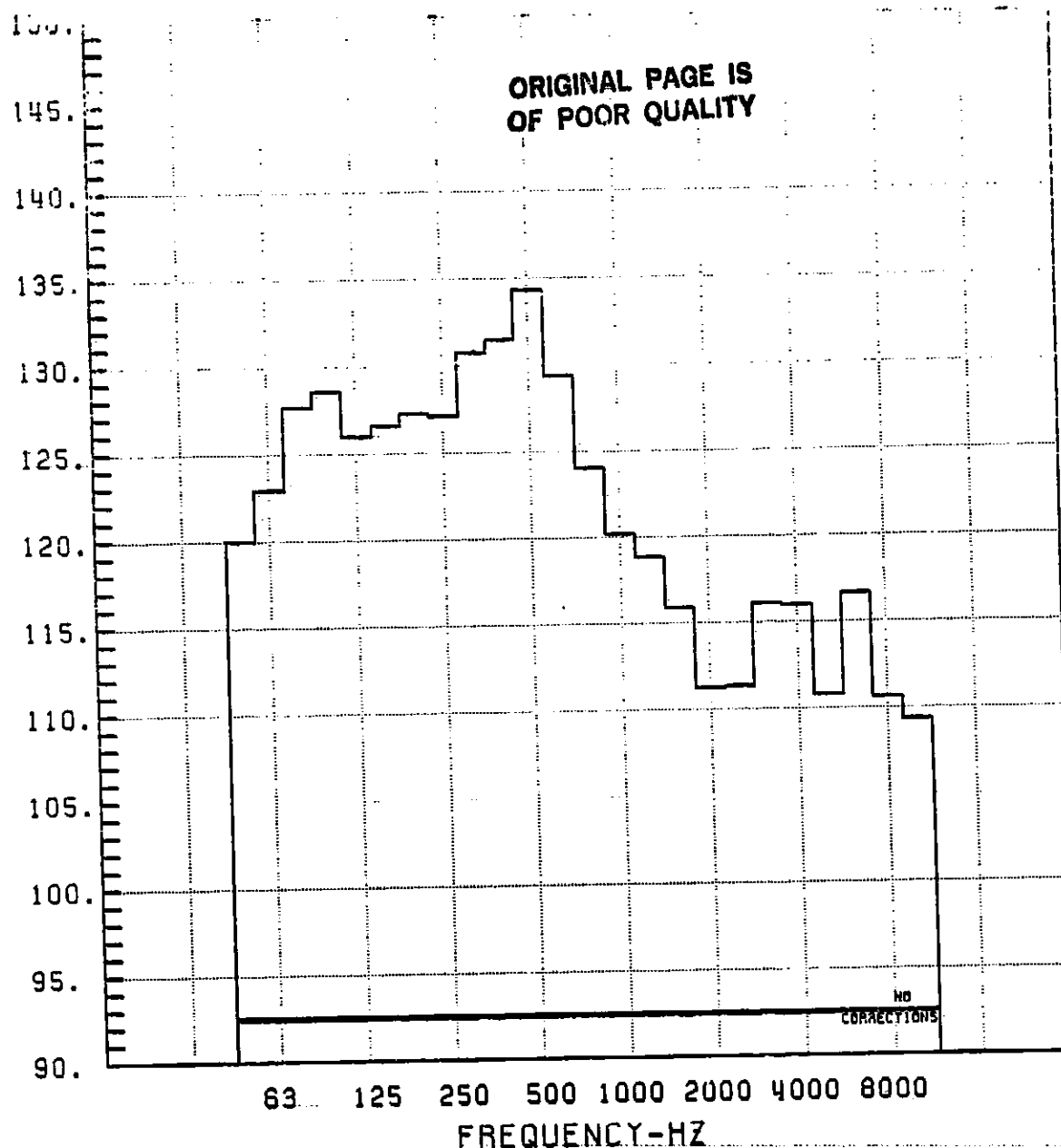
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TEST DATE: FEB. 22, 1981

PROBE NUMBER: 7. GROUP NUMBER: 1

RUN NUMBER: 132

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

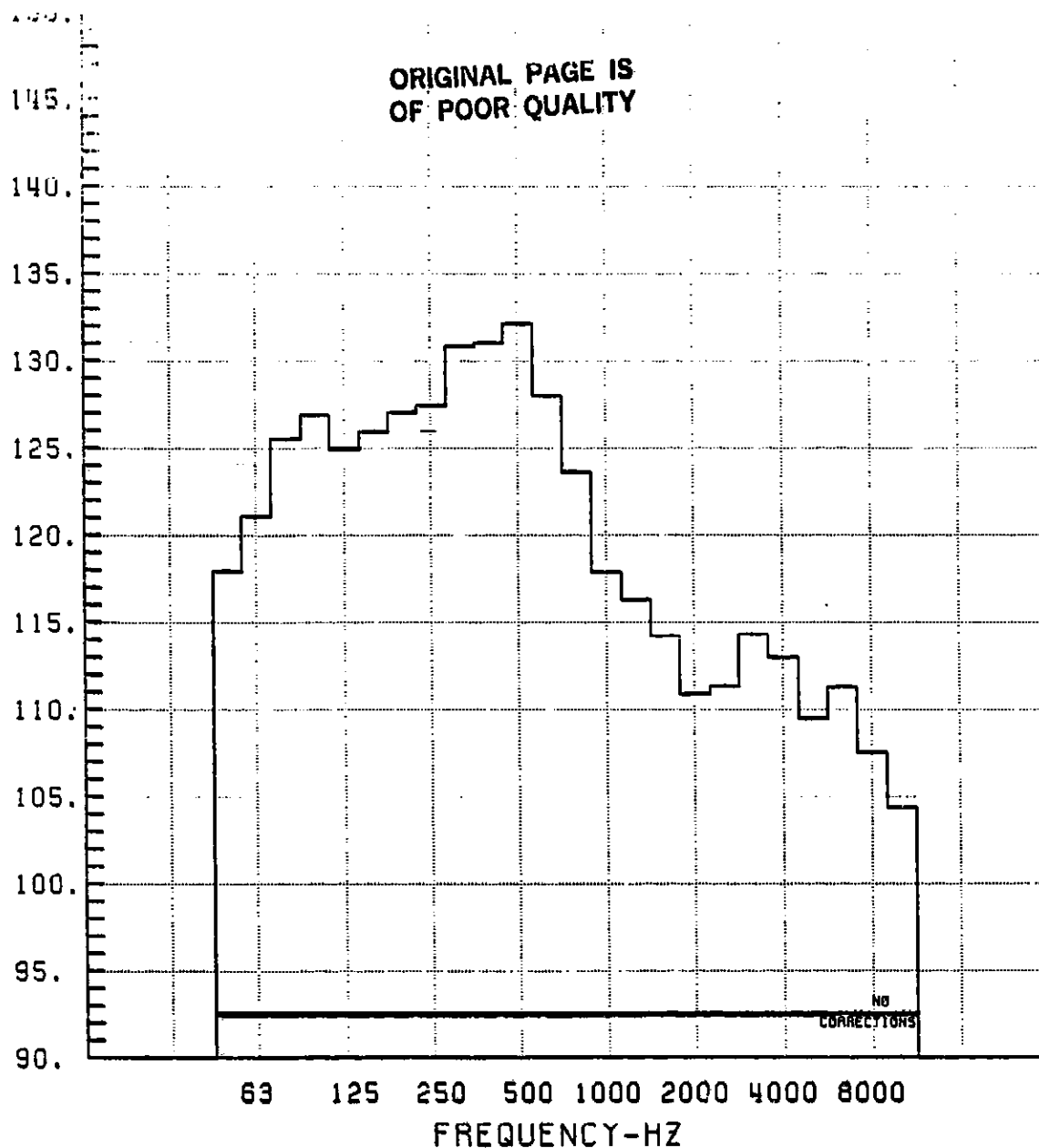
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TEST DATE: FEB. 22, 1981

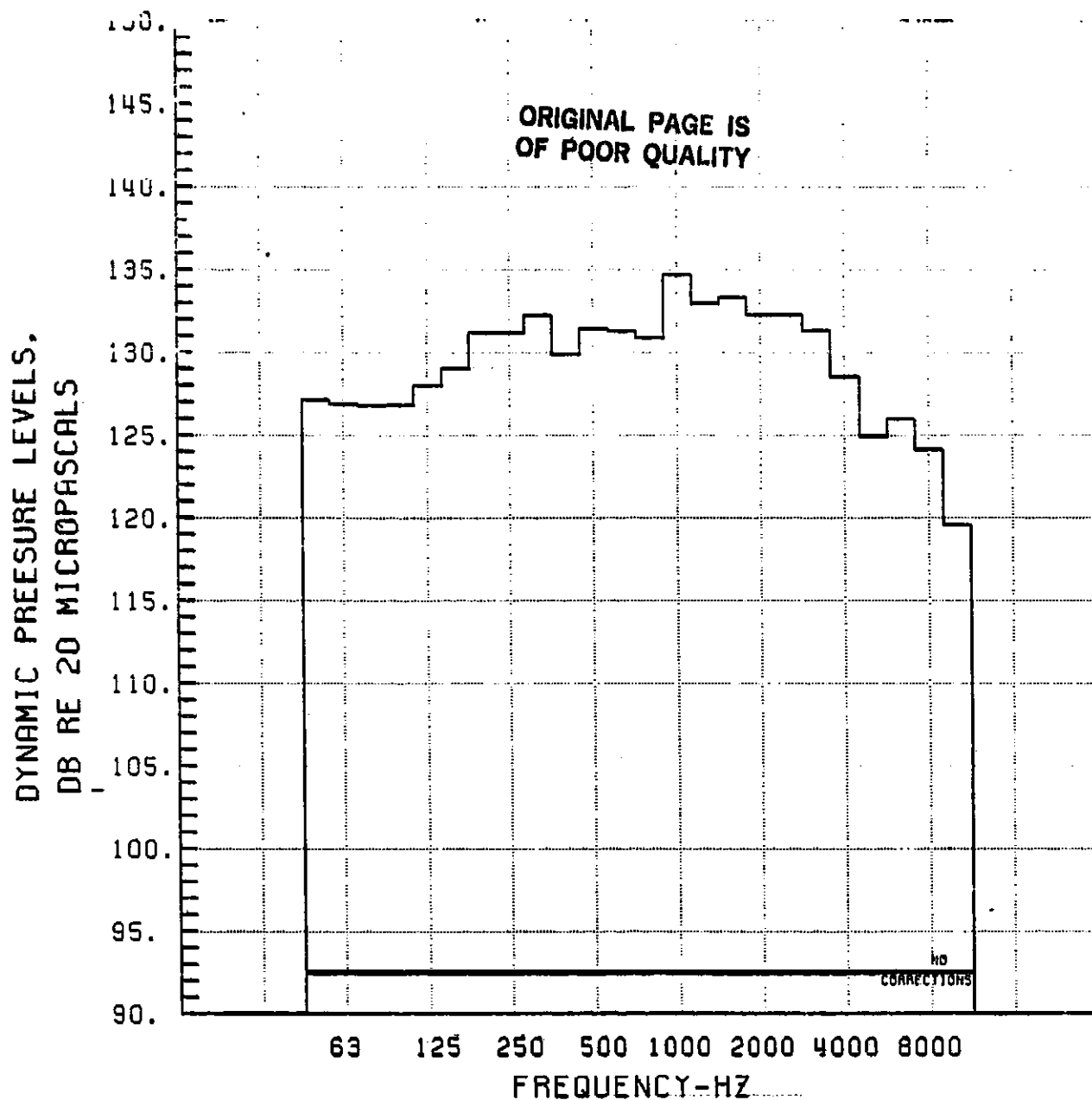
PROBE NUMBER: 8. GROUP NUMBER: I RUN NUMBER: 132

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: RF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=138.5 KPA(20.1 PSIA), COMB EXIT TEMP=1076. DEG C(1968.2 DEG F)
AIR FLOW= 1.32 KG/SEC(2.92#/SEC), FUEL FLOW=133.2 KG/HR(293.7 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 9. GROUP NUMBER: I RUN NUMBER: 132



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

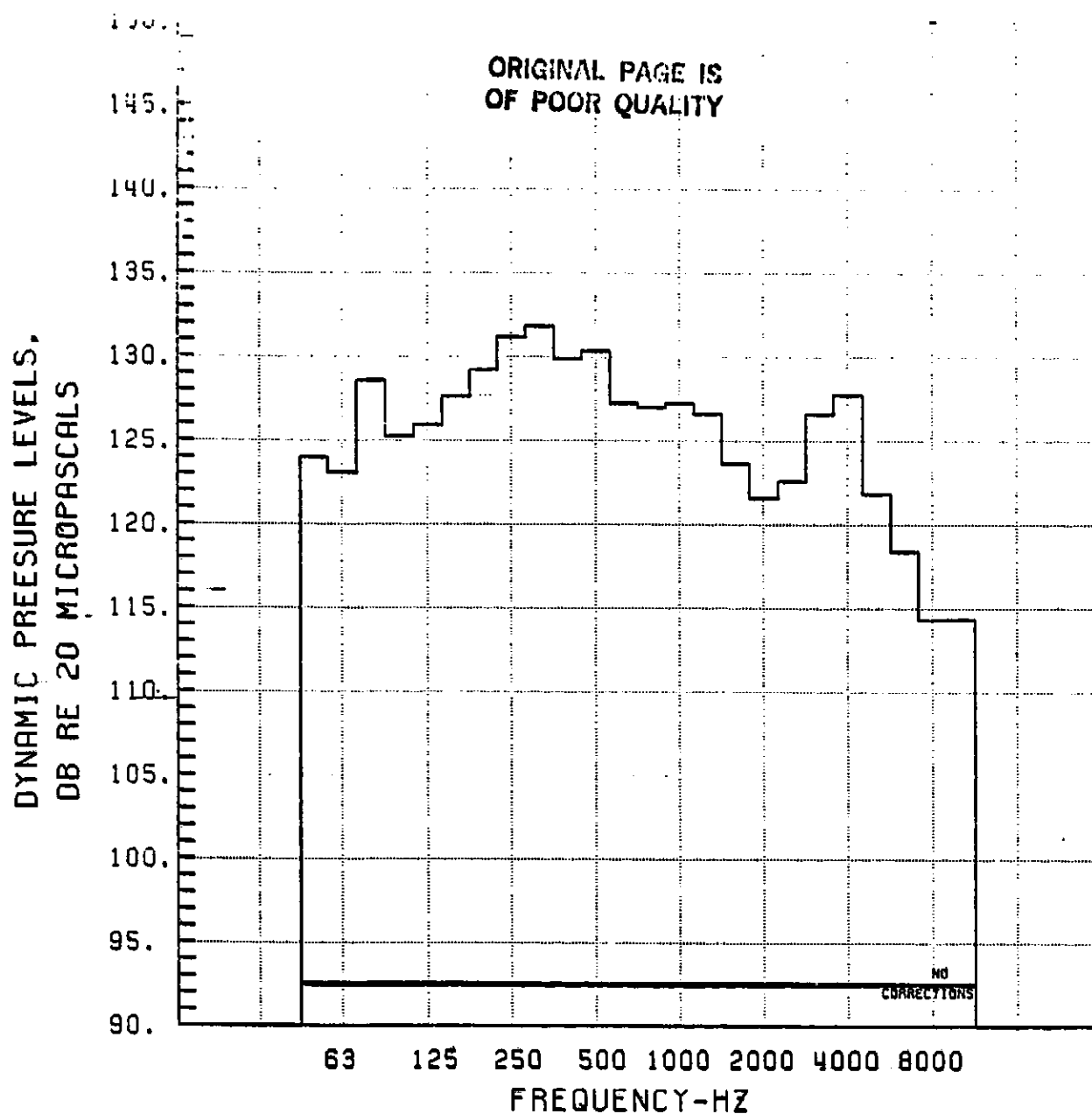
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AIR FLOW= 1.32 KG/SEC(2.92*/SEC), FUEL FLOW=133.2 KG/HR(293.7 */HR)

TEST DATE: FEB. 22, 1981

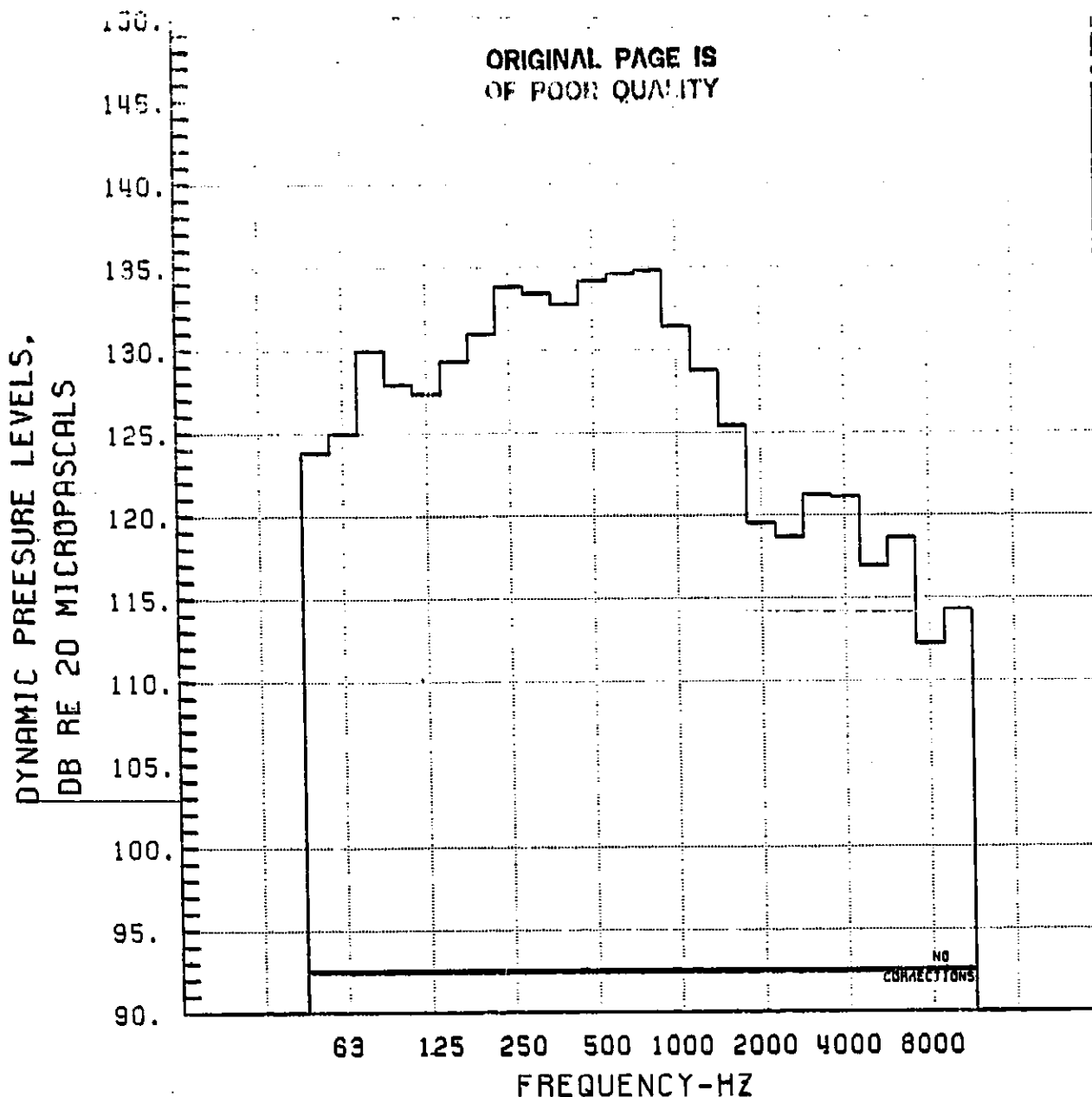
PROBE NUMBER: 10. GROUP NUMBER: I

RUN NUMBER: 132



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=186.3 KPA (27.0 PSIA), COMB EXIT TEMP=745.2 DEG C (1373.4 DEG F)
AIR FLOW= 2.44 KG/SEC (5.37*/SEC), FUEL FLOW=150.0 KG/HR (330.7 */HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 1. GROUP NUMBER: I RUN NUMBER: 133



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: TF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=186.3 KPA(27.0 PSIA), COMB EXIT TEMP=745.2 DEG C(1373.4 DEG F)

AIR FLOW= 2.44 KG/SEC(5.37#/SEC), FUEL FLOW=150.0 KG/HR(330.7 #/HR)

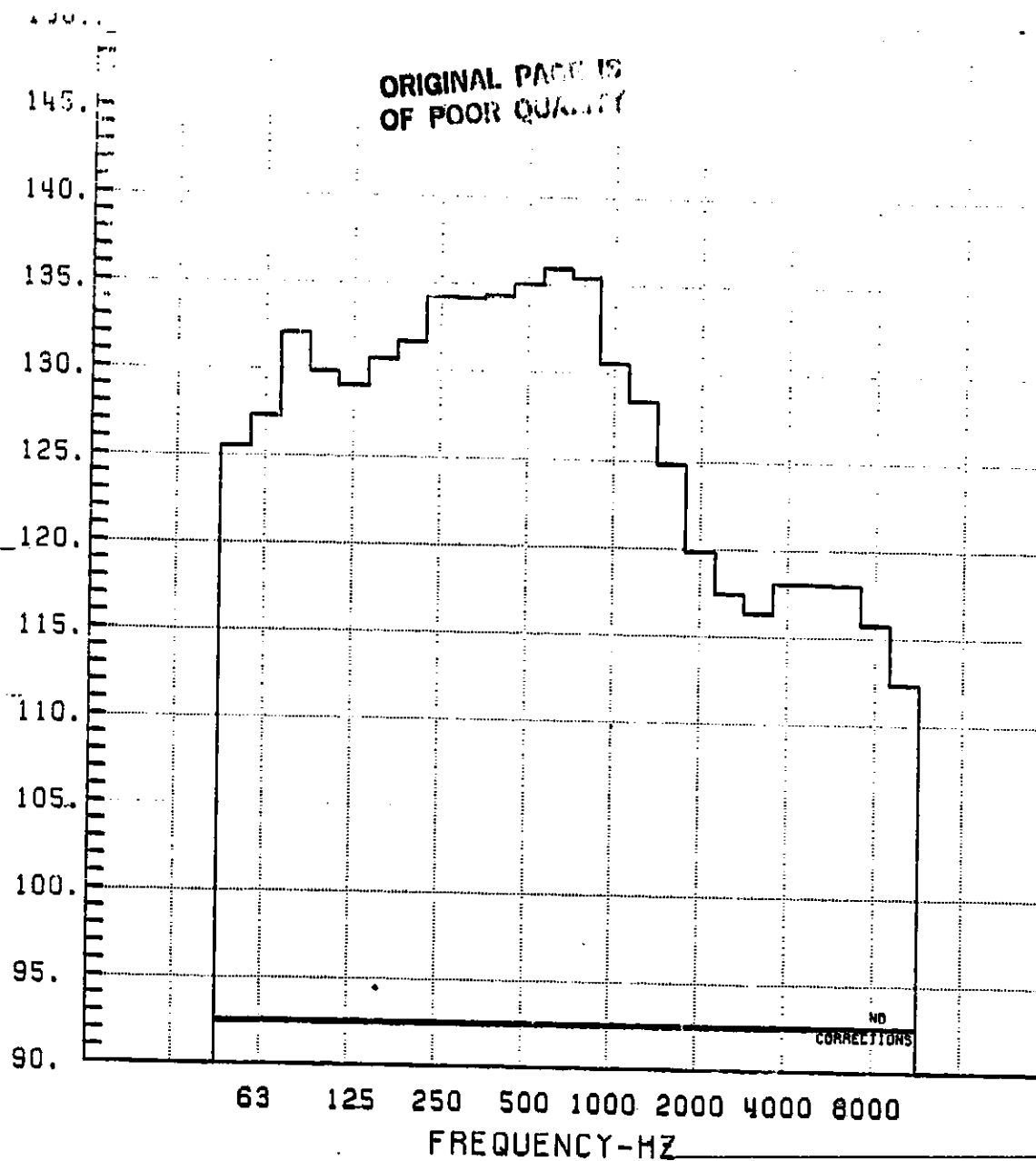
TEST DATE: FEB. 22, 1981

PROBE NUMBER: 2.

GROUP NUMBER: I

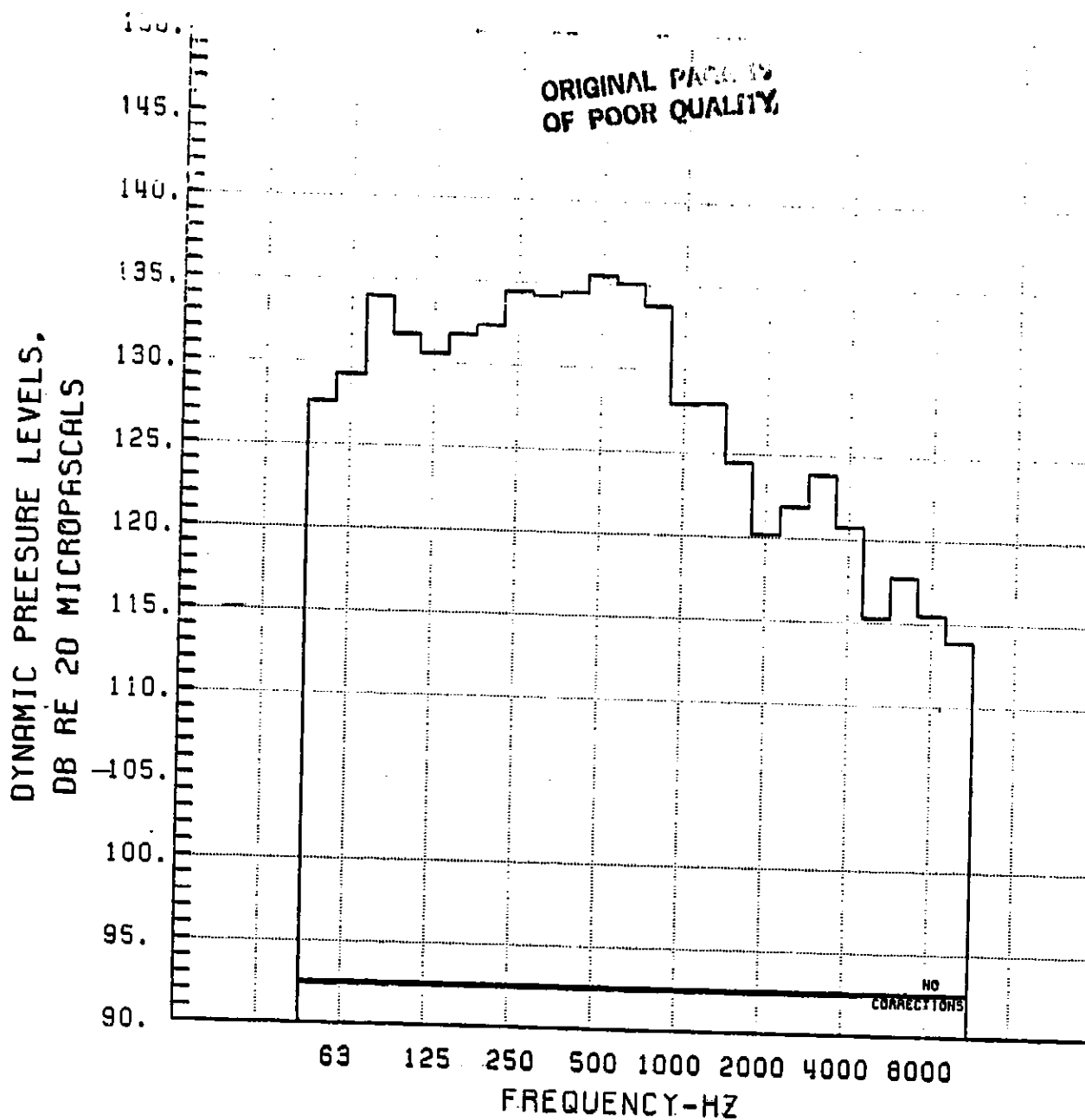
RUN NUMBER: 133

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

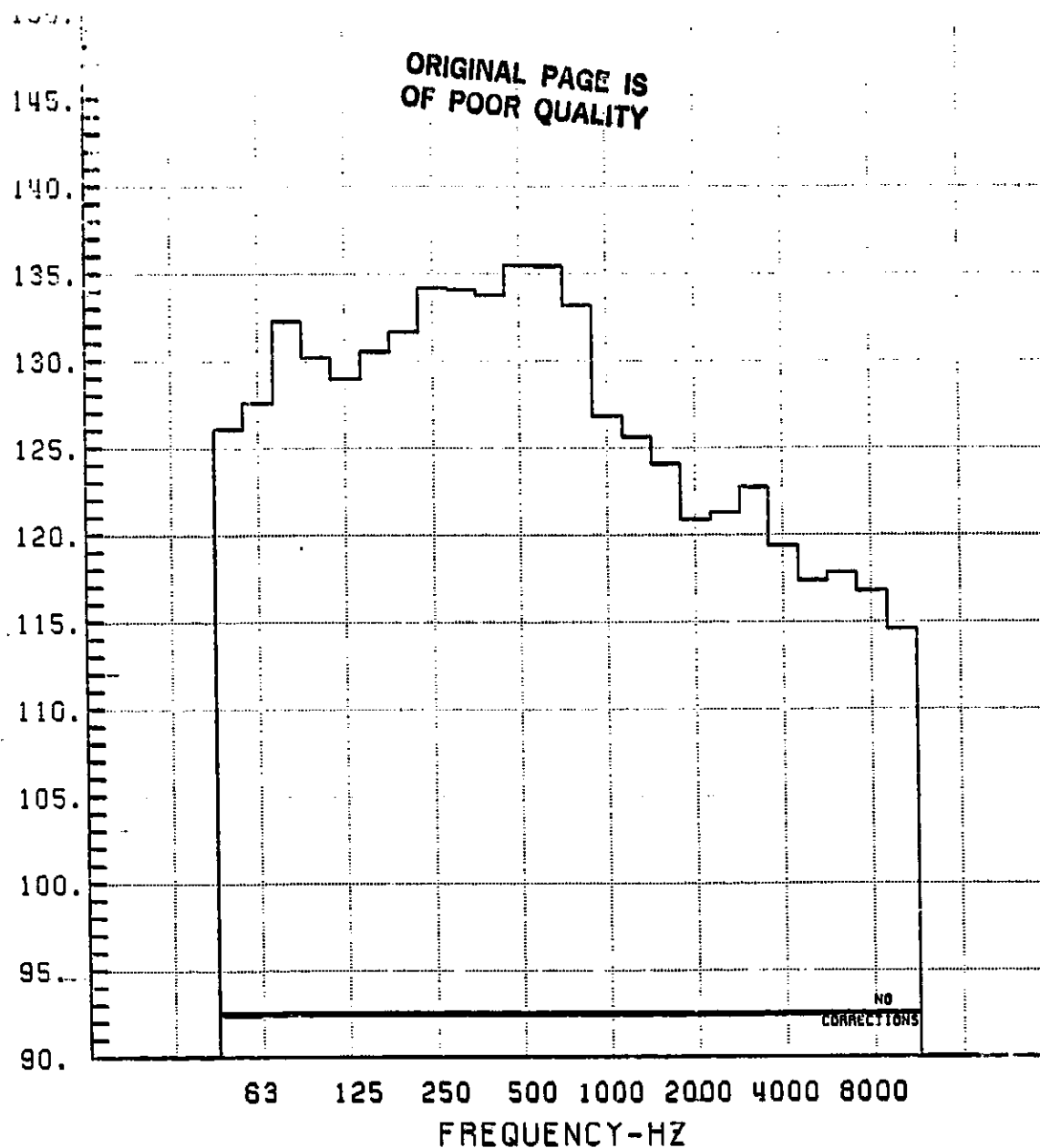
TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=186.3 KPA(27.0 PSIA), COMB EXIT TEMP=745.2 DEG C(1373.4 DEG F)
AIR FLOW= 2.44 KG/SEC(5.37*/SEC), FUEL FLOW=150.0 KG/HR(330.7 */HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 3. GROUP NUMBER: I RUN NUMBER: 133



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

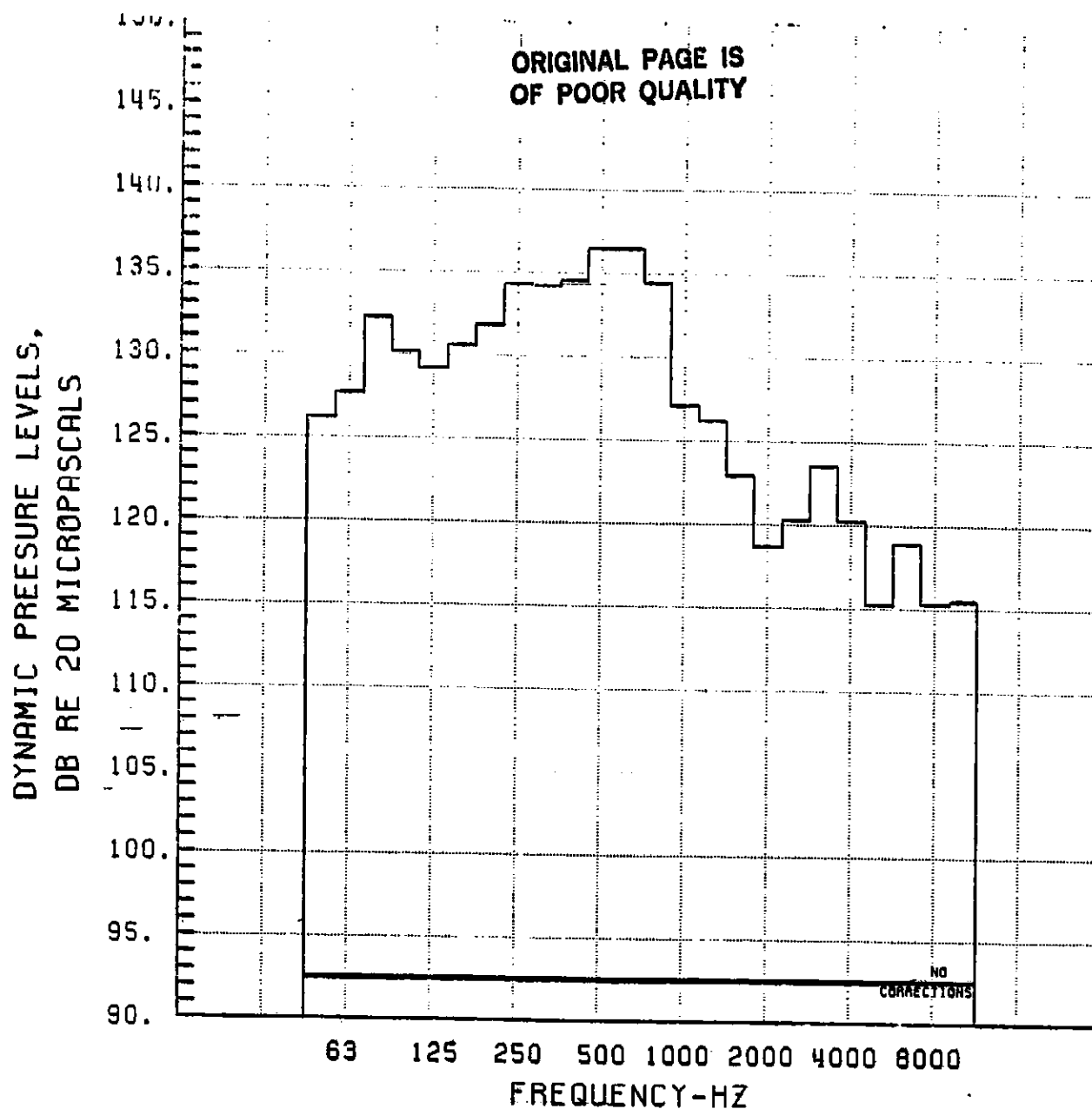
TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=186.3 KPA(27.0 PSIA), COMB EXIT TEMP=745.2 DEG C(1373.4 DEG F)
AIR FLOW= 2.44 KG/SEC(5.37#/SEC), FUEL FLOW=150.0 KG/HRA(330.7 #/HRA)
TEST DATE: FEB, 22, 1981
PROBE NUMBER: 4. GROUP NUMBER: I RUN NUMBER: 133

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



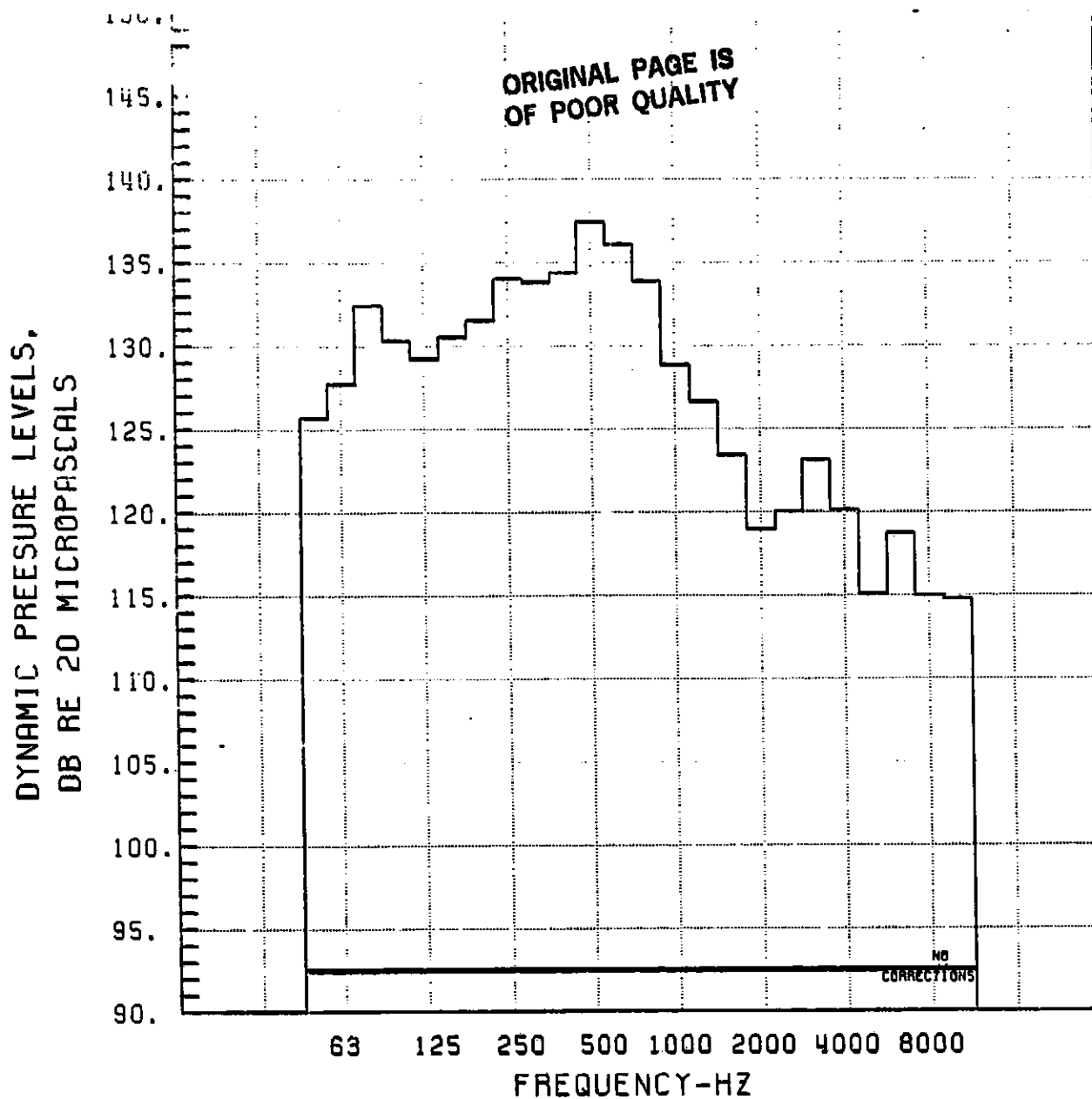
AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=186.3 KPA (27.0 PSIA), COMB EXIT TEMP=745.2 DEG C (1373.4 DEG F)
AIR FLOW= 2.44 KG/SEC (5.37#/SEC), FUEL FLOW=150.0 KG/HR (330.7 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 5. GROUP NUMBER: I RUN NUMBER: 133



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=186.3 KPA(27.0 PSIA), COMB EXIT TEMP=745.2 DEG C(1373.4 DEG F,
AIR FLOW= 2.44 KG/SEC(5.37#/SEC), FUEL FLOW=150.0 KG/HR(330.7 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 6. GROUP NUMBER: I RUN NUMBER: 133



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: TF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=186.3 KPA(27.0 PSIA), COMB EXIT TEMP=745.2 DEG C(1373.4 DEG F)

AIR FLOW= 2.14 KG/SEC(5.37*/SEC), FUEL FLOW=150.0 KG/HR(330.7 */HR)

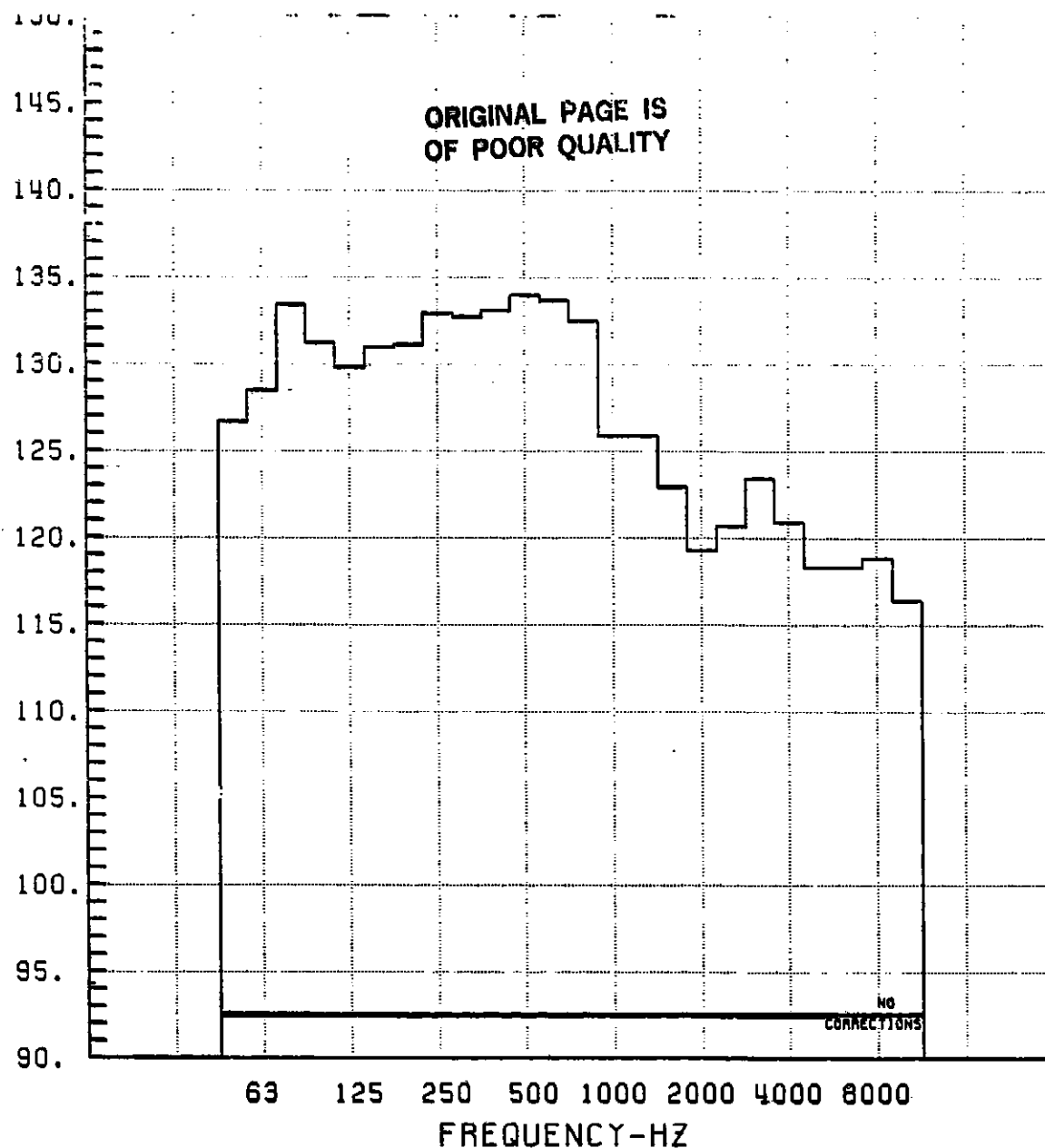
TEST DATE: FEB. 22, 1981

PROBE NUMBER: 7.

GROUP NUMBER: I

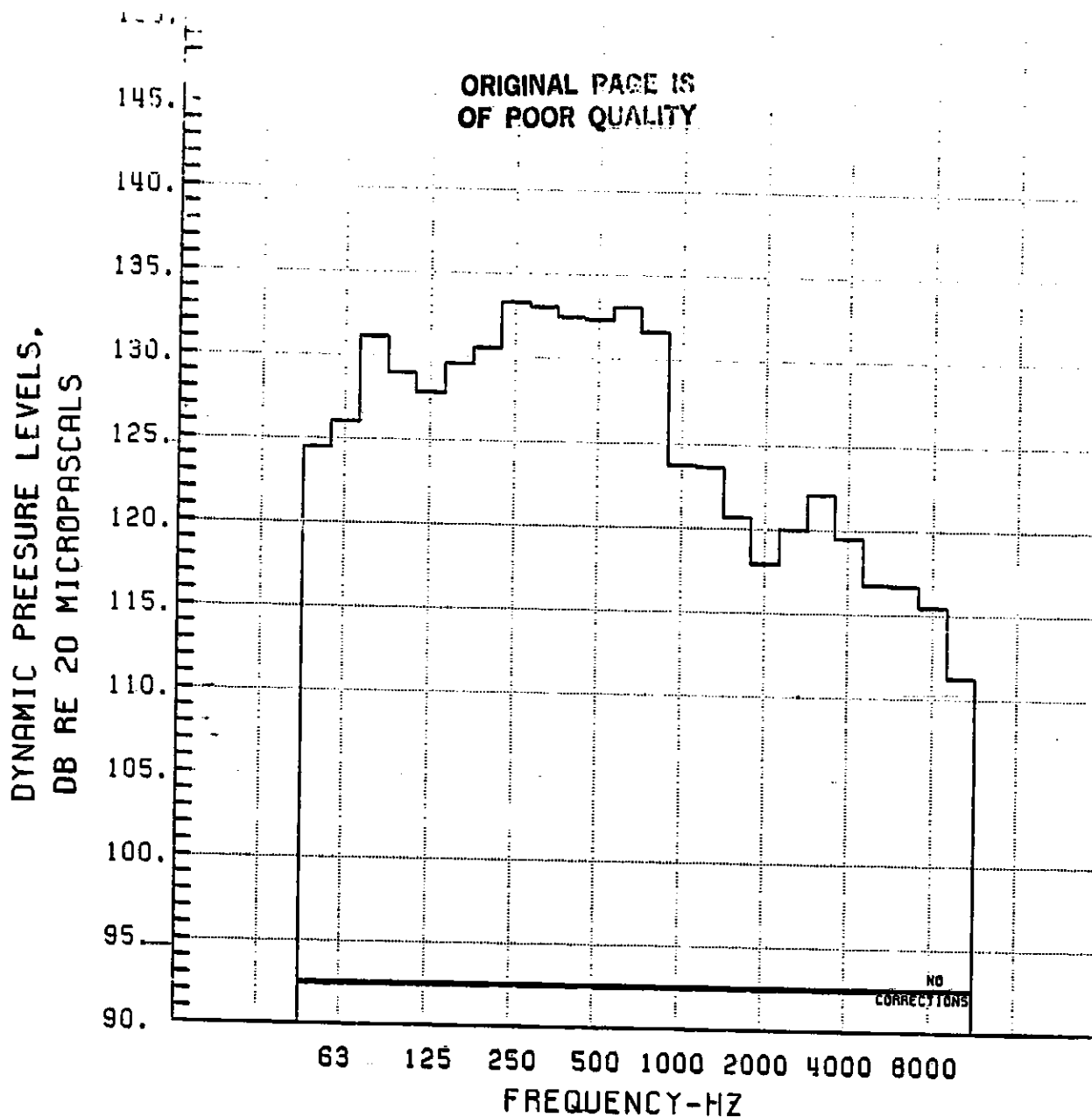
RUN NUMBER: 133

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



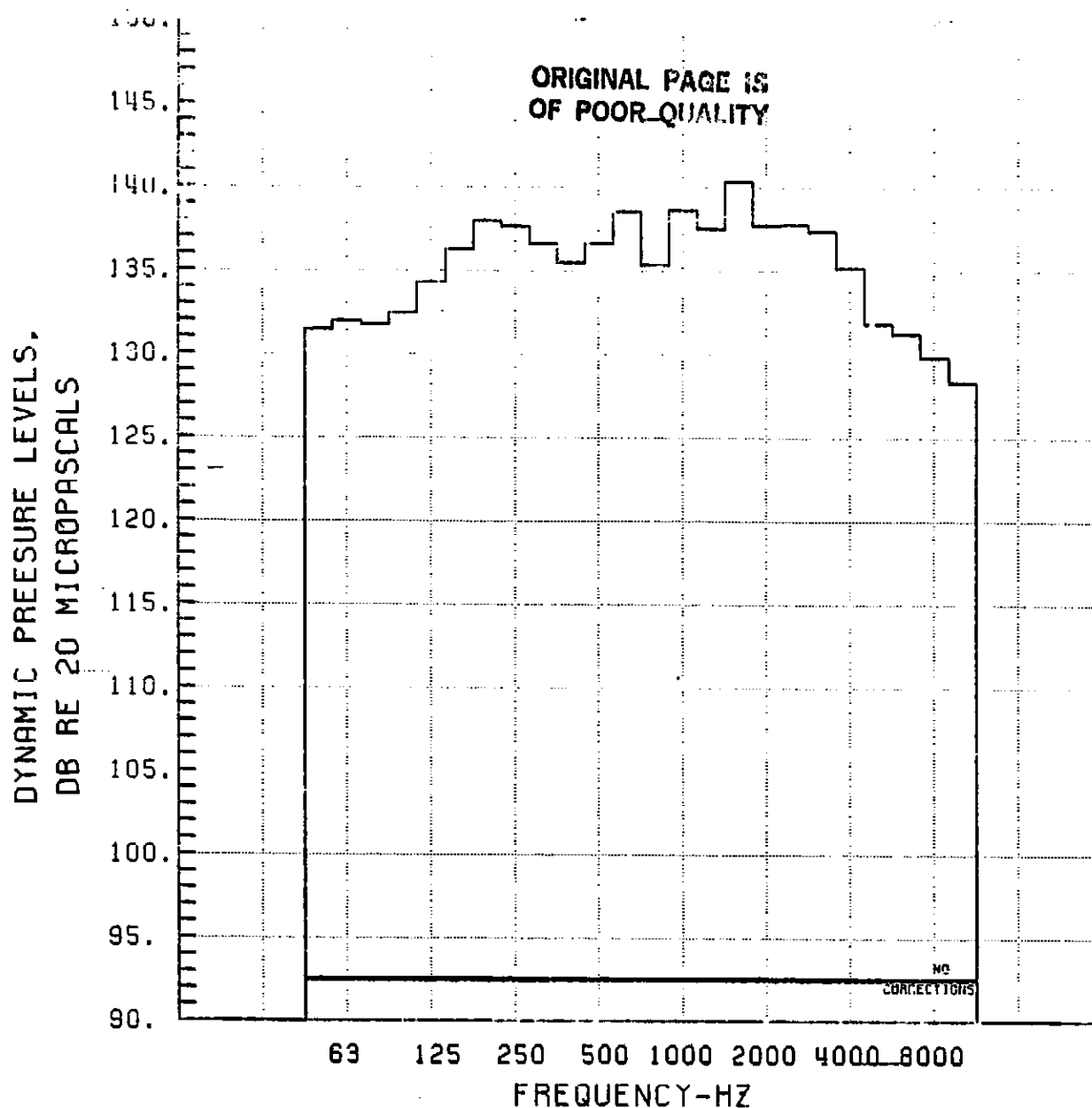
AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=186.3 KPA(27.0 PSIA), COMB EXIT TEMP=745.2 DEG C(1373.4 DEG F)
AIR FLOW= 2.44 KG/SEC(5.37*/SEC), FUEL FLOW=150.0 KG/HRI 330.7 */HRI
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 8. GROUP NUMBER: I RUN NUMBER: 133



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: TF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=186.3 KPA(27.0 PSIA), COMB EXIT TEMP=745.2 DEG C(1373.4 DEG F)
AIR FLOW= 2.44 KG/SEC(5.37*/SEC), FUEL FLOW=150.0 KG/HR(330.7 */HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 9. GROUP NUMBER: I RUN NUMBER: 133



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: RF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=186.3 KPA(27.0 PSIA), COMB EXIT TEMP=745.2 DEG C(1373.4 DEG F)

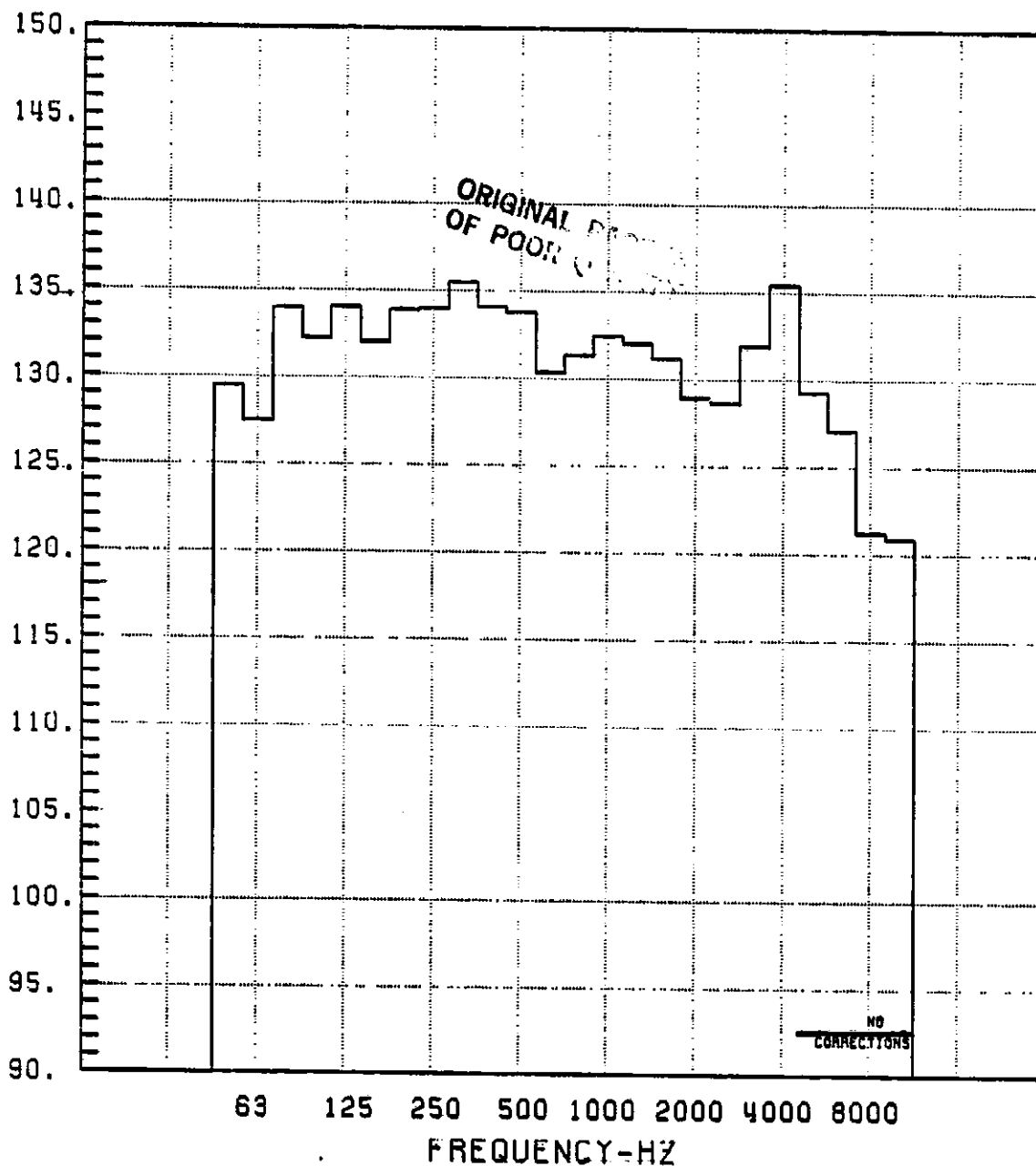
AIR FLOW= 2.44 KG/SEC(5.37#/SEC), FUEL FLOW=100.0 KG/HR(220.7 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 10. GROUP NUMBER: I

RUN NUMBER: 133

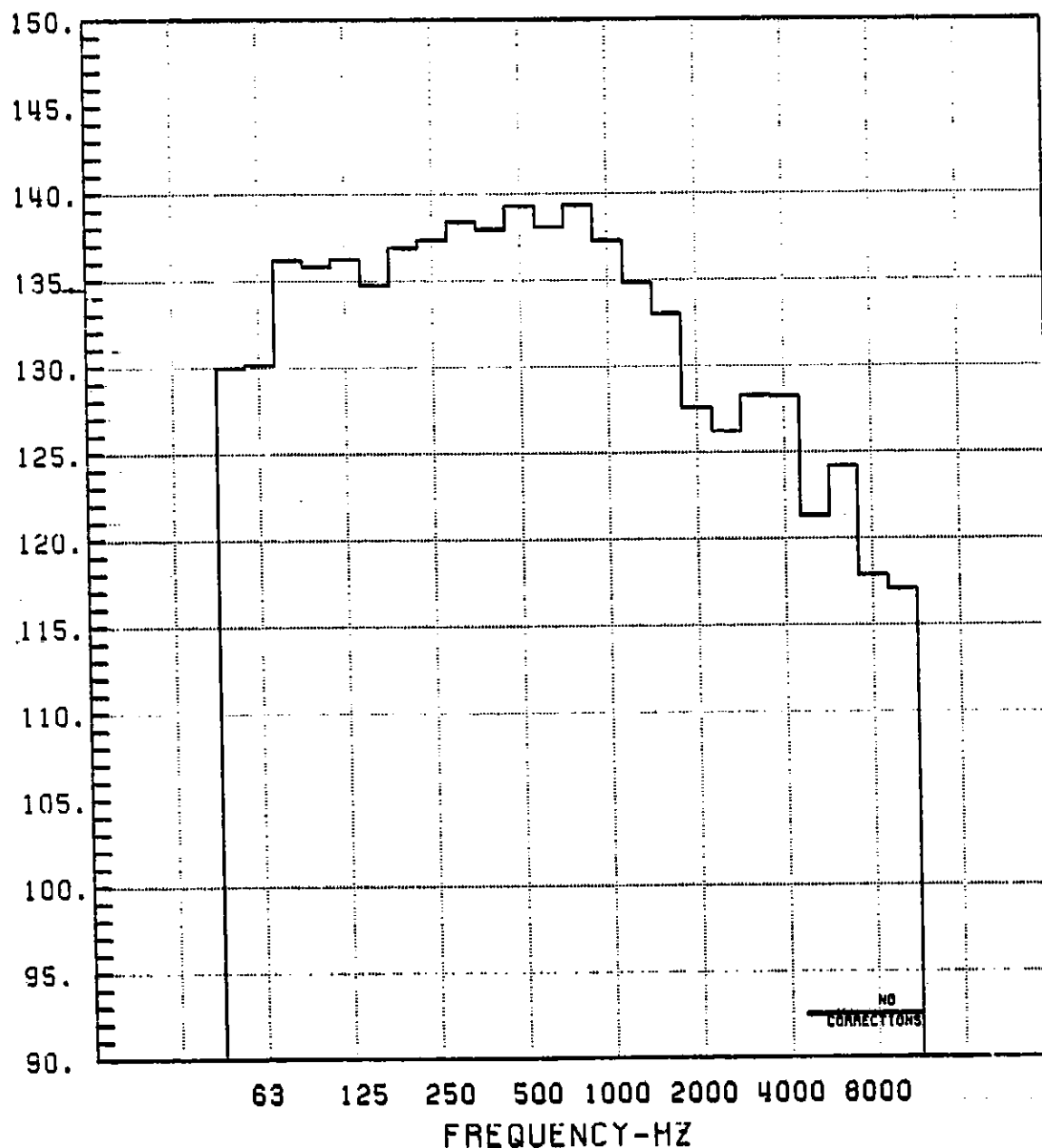
DYNAMIC PRESSURE LEVELS,
DR RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: TF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=256.0 KPA(37.1 PSIA), COMB EXIT TEMP=675.9 DEG C(1248.6 DEG F)
AIR FLOW= 3.46 KG/SEC(7.62#/SEC), FUEL FLOW=179.5 KG/HR(395.8 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 1. GROUP NUMBER: I RUN NUMBER: 102

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

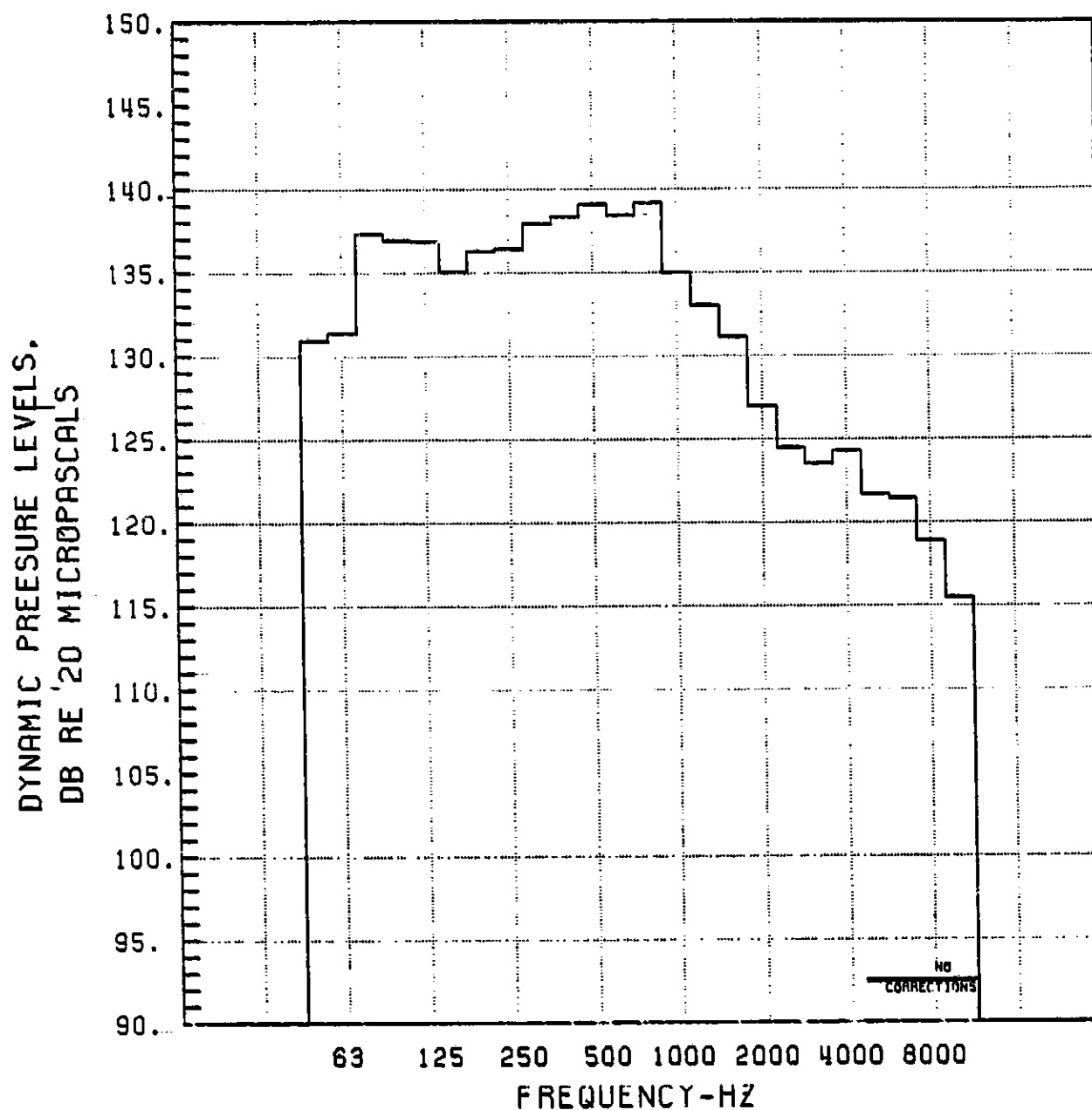
INLET PRESS=256.0 KPA(37.1 PSIA), COMB EXIT TEMP=675.9 DEG C(1248.6 DEG F)

AIR FLOW= 3.46 KG/SEC(7.62*/SEC), FUEL FLOW=179.5 KG/HR(395.8 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 2. GROUP NUMBER: 1

RUN NUMBER: 102



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=256.0 KPA(37.1 PSIA), COMB EXIT TEMP=675.9 DEG C(1248.6 DEG F)

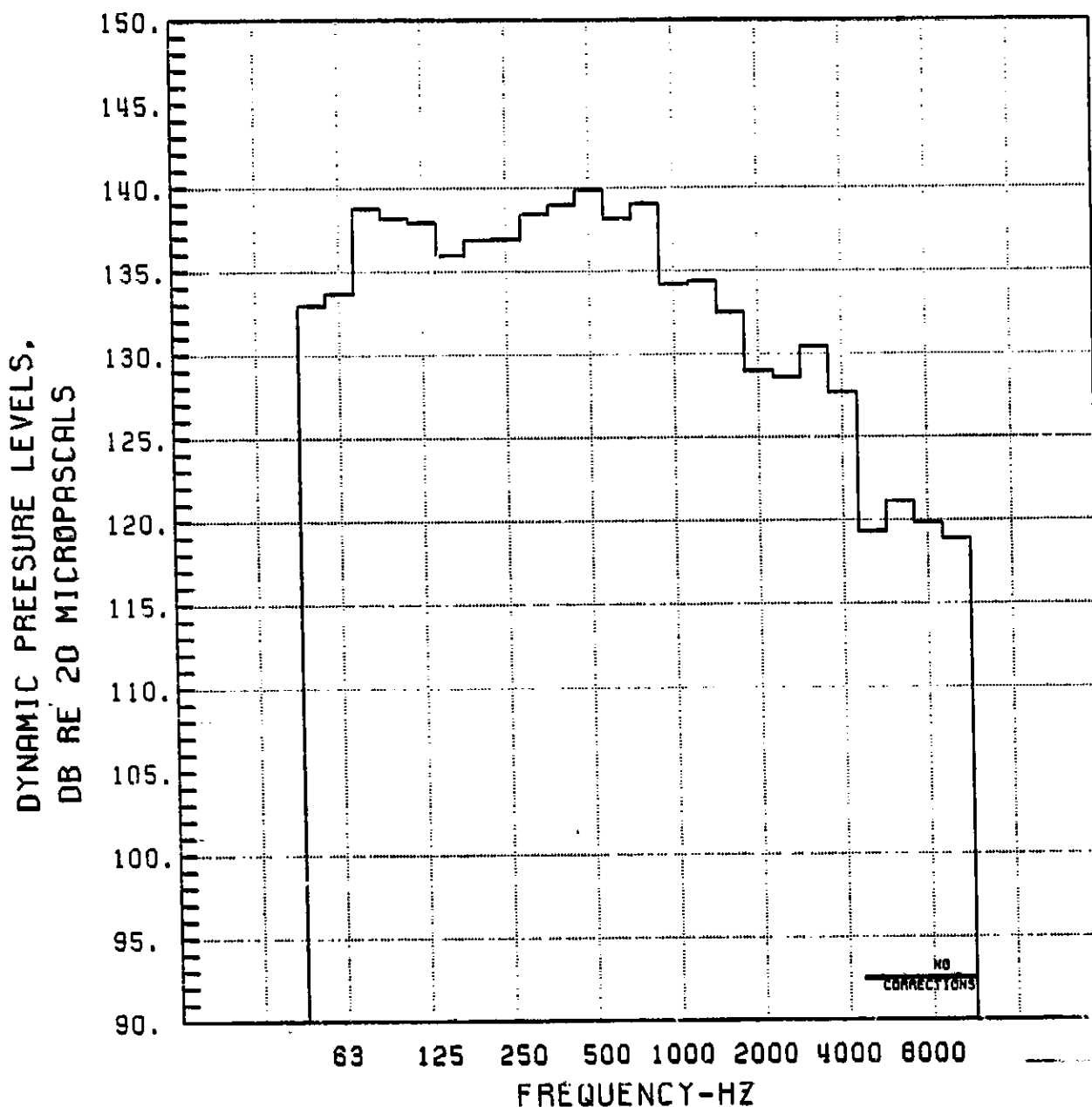
AIR FLOW= 3.46 KG/SEC(7.62#/SEC), FUEL FLOW=179.5 KG/HR(395.8 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 3.

GROUP NUMBER: 1

RUN NUMBER: 102



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

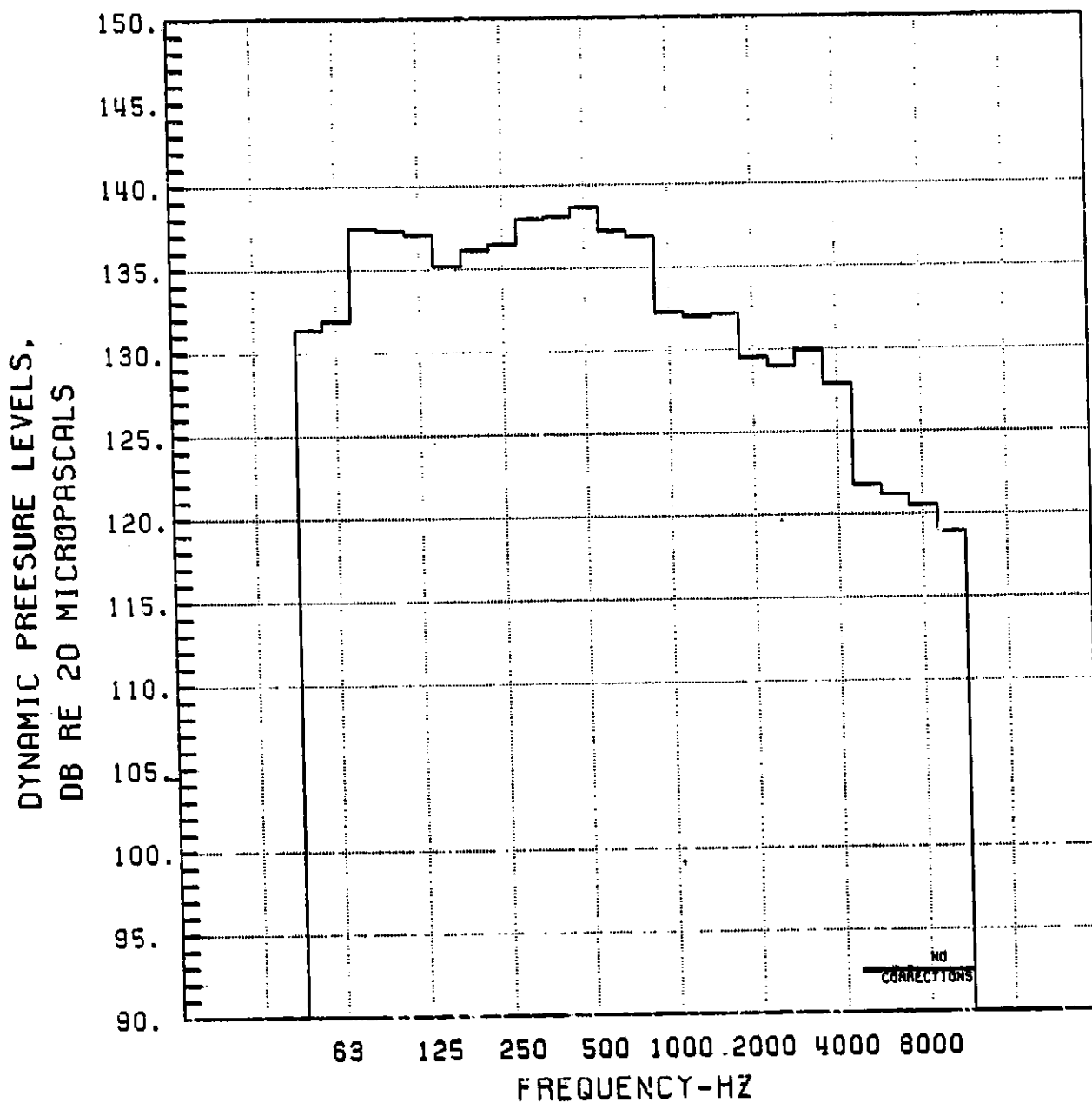
INLET PRESS=256.0 KPA(37.1 PSIA), COMB EXIT TEMP=675.9 DEG C(1248.6 DEG F)

AIR FLOW= 3.46 KG/SEC(7.62*/SEC), FUEL FLOW=179.5 KG/HR(395.8 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 4. GROUP NUMBER: I

RUN NUMBER: 102



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

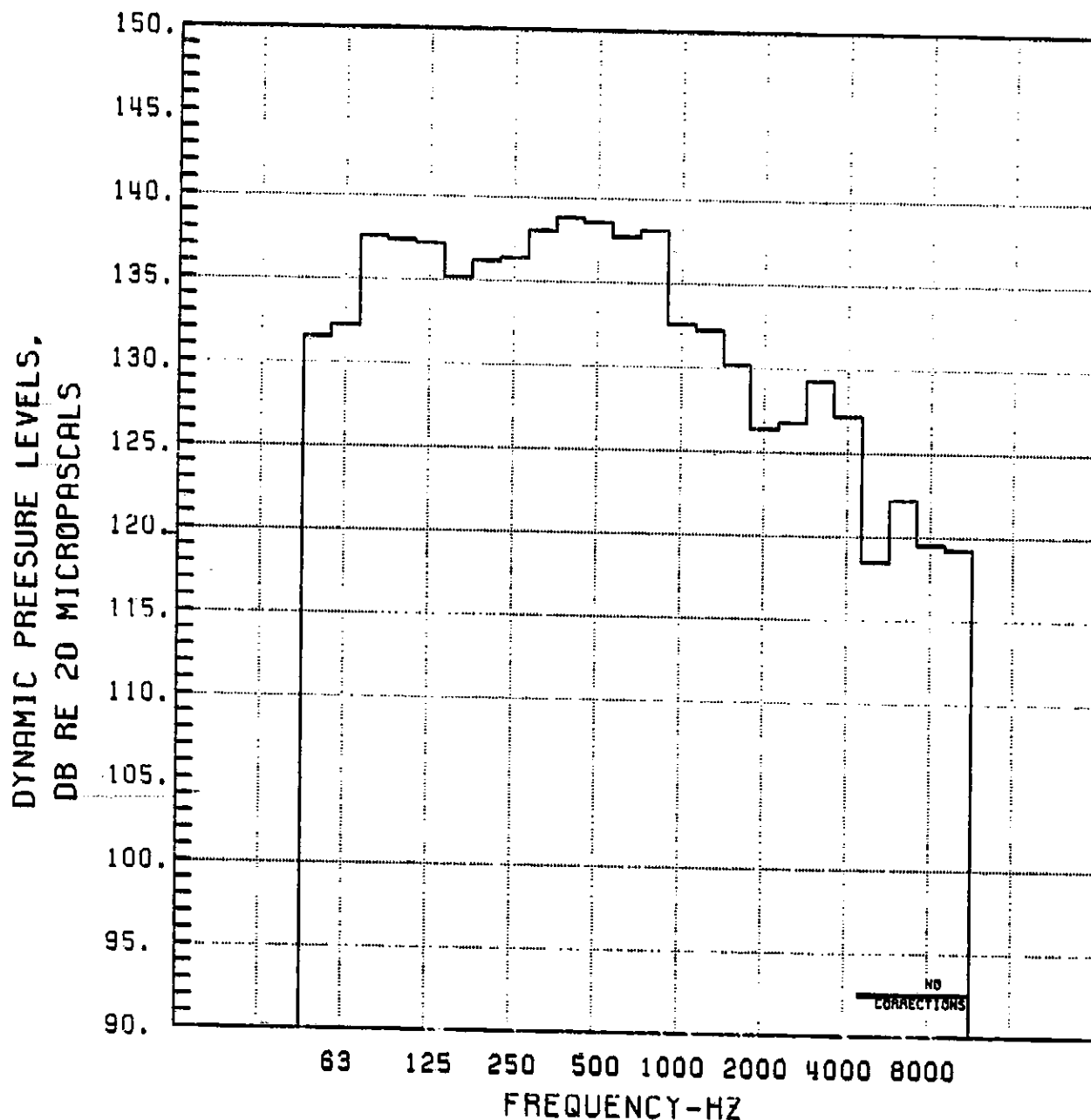
INLET PRESS=256.0 KPA(37.1 PSIA), COMB EXIT TEMP=675.9 DEG C(1248.6 DEG F)

AIR FLOW= 3.46 KG/SEC(7.62*/SEC), FUEL FLOW=179.5 KG/HR(395.8 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 5. GROUP NUMBER: I

RUN NUMBER: 102



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=256.0 KPA (37.1 PSIA), COMB EX11 TEMP=675.9 DEG C (1248.6 DEG F)

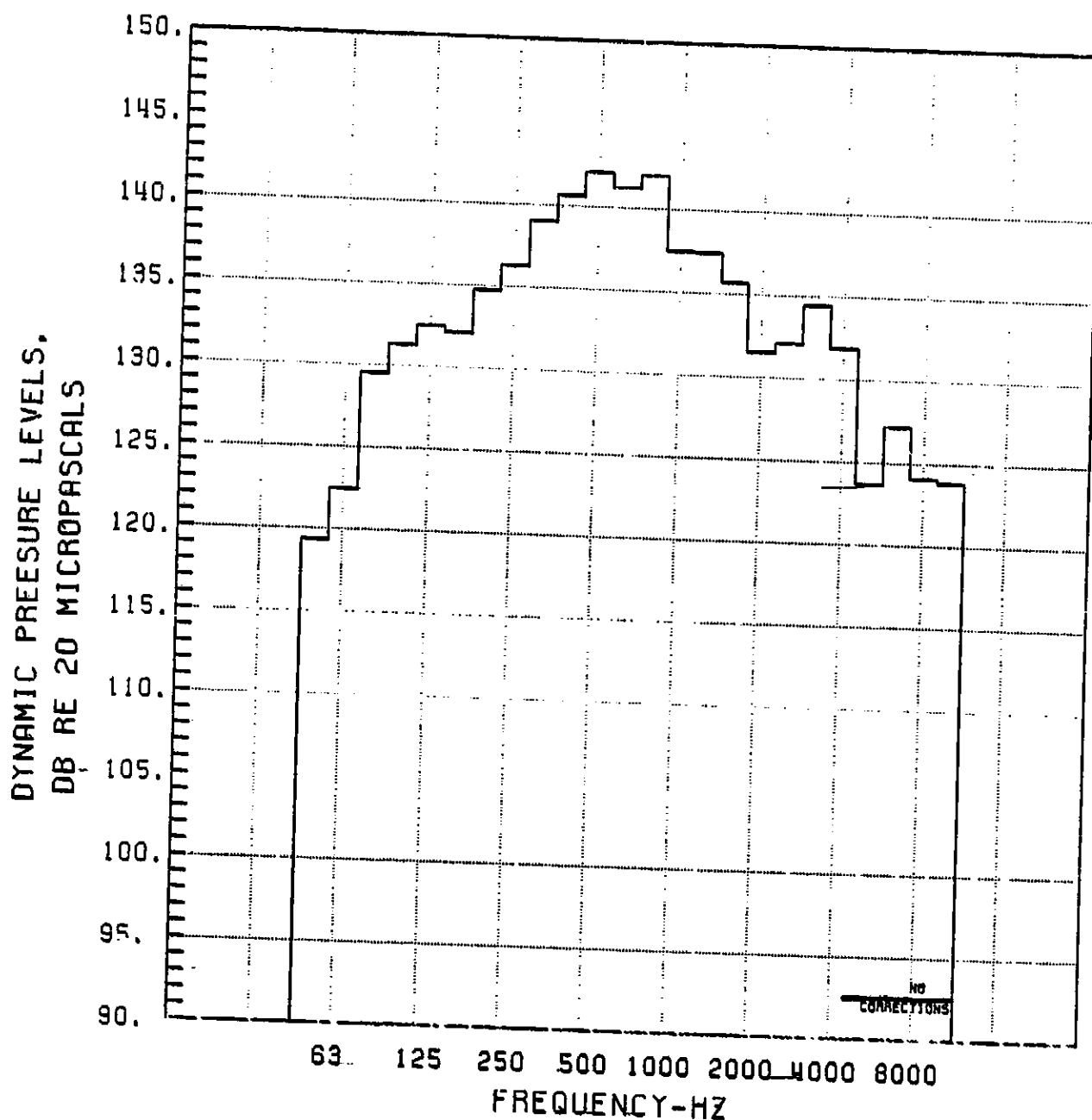
AIR FLOW= 3.46 KG/SEC (7.62*/SEC), FUEL FLOW=179.5 KG/HR (395.8 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 6.

GROUP NUMBER: 1

RUN NUMBER: 102



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

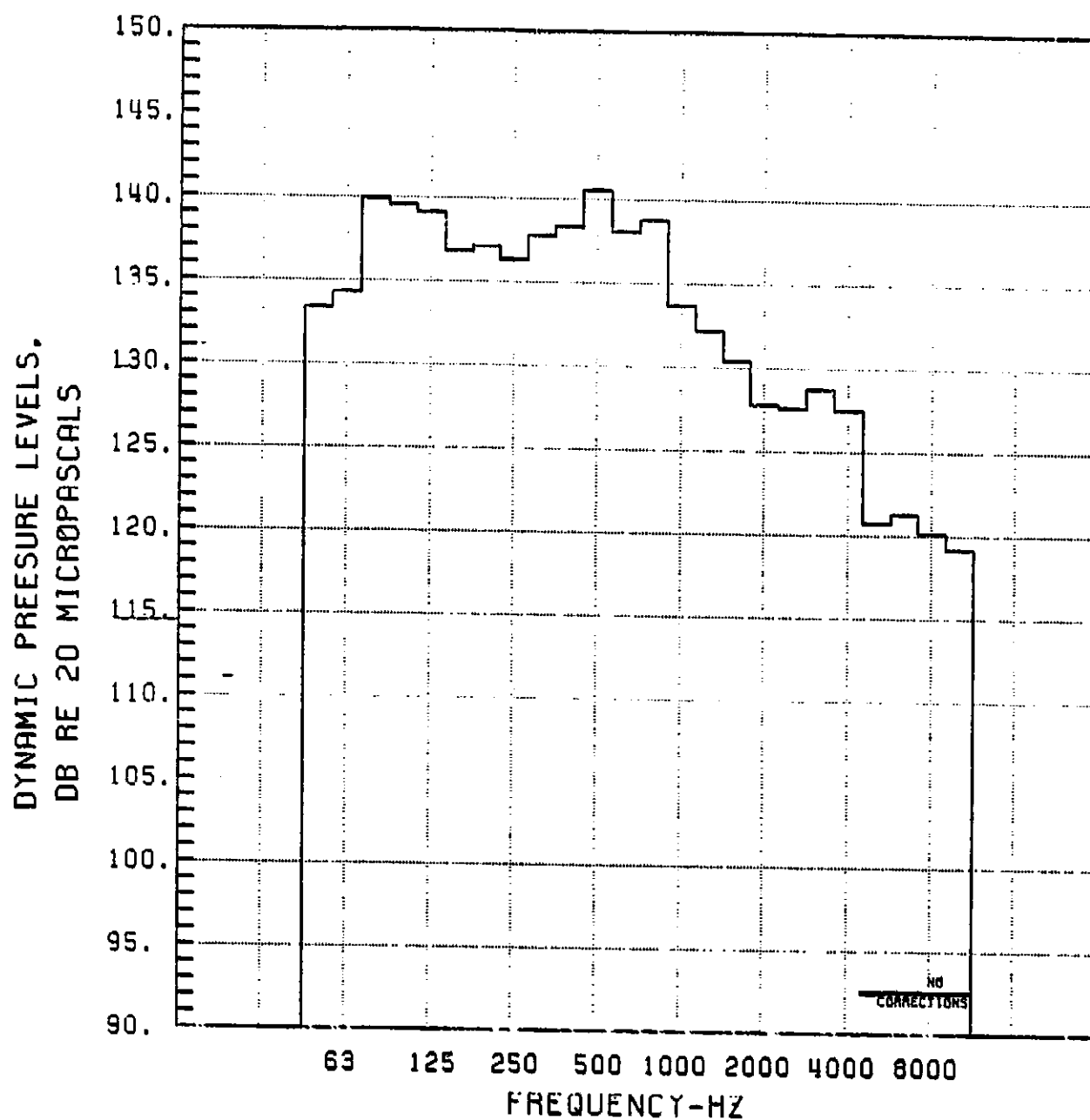
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=256.0 KPA(37.1 PSIA), COMB EXIT TEMP=675.9 DEG C(1248.6 DEG F)
AIR FLOW= 3.46 KG/SEC(7.62#/SEC), FUEL FLOW=179.5 KG/HR(395.8 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 7. GROUP NUMBER: I

RUN NUMBER: 102



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

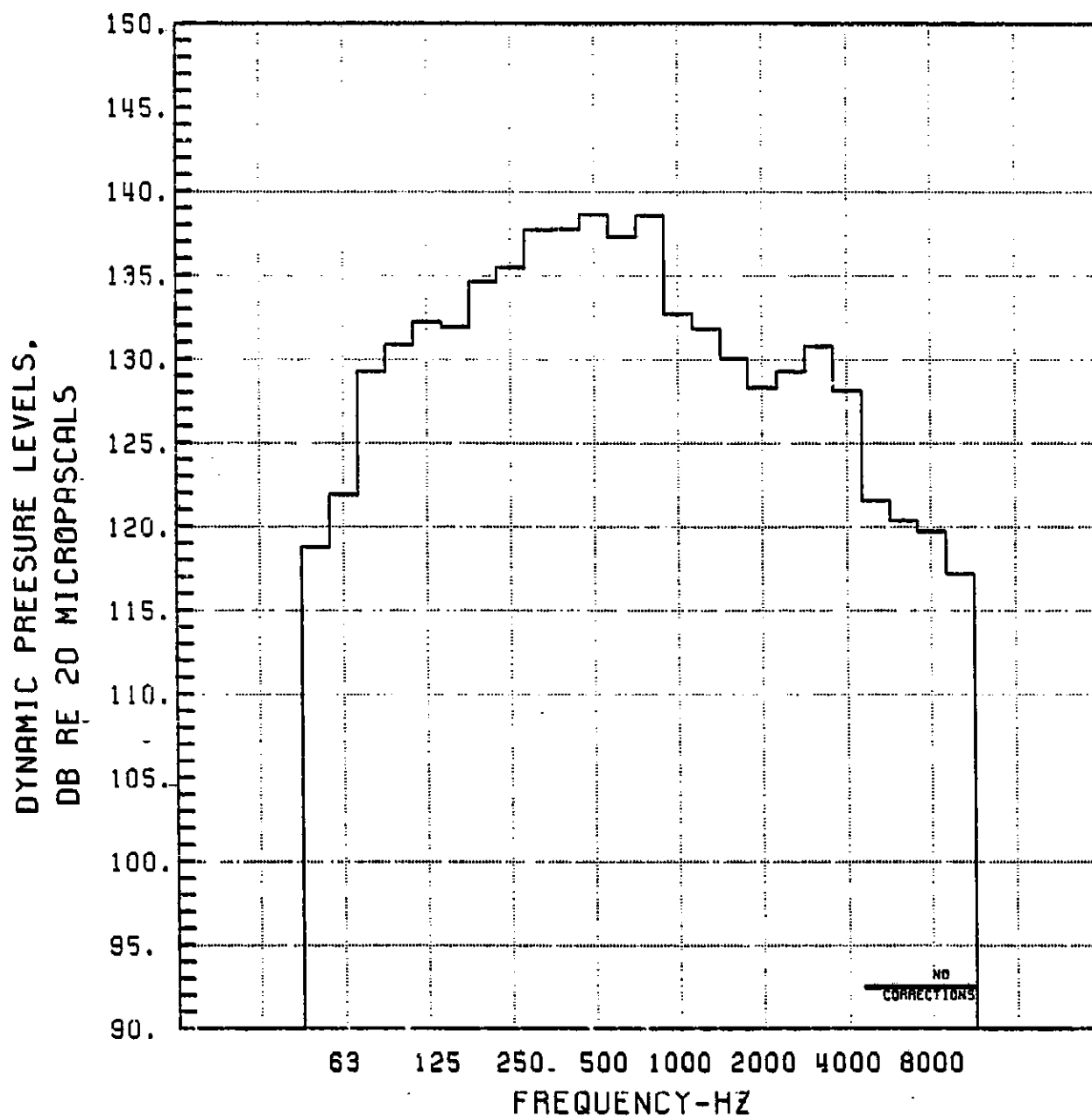
INLET PRESS=256.0 KPA(37.1 PSIA), COMB EXIT TEMP=675.9 DEG C(1248.6 DEG F)

AIR FLOW= 3.46 KG/SEC(7.62#/SEC), FUEL FLOW=179.5 KG/HR(395.8 #/HR)

TEST DATE: FEB. 22, 1981

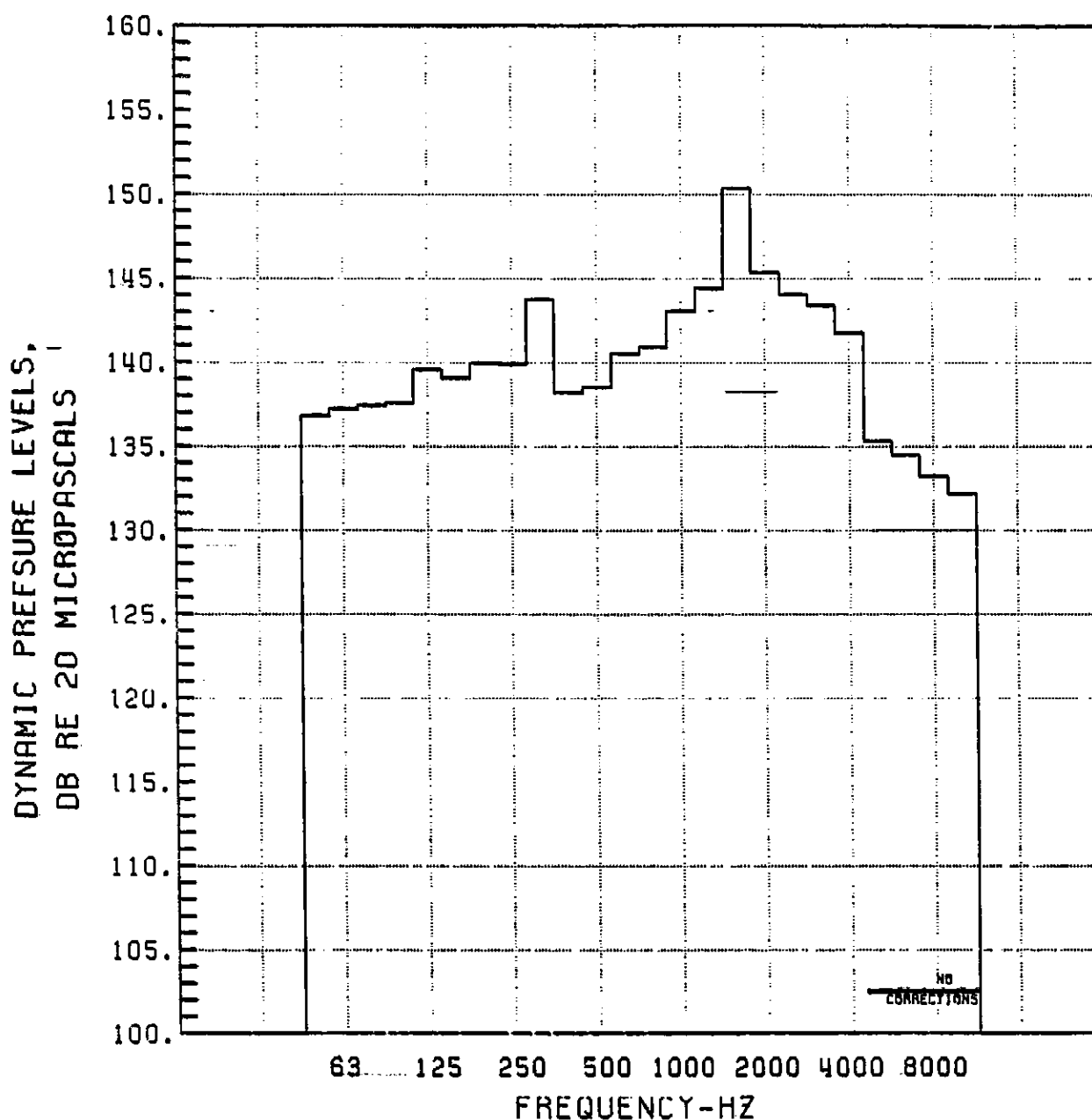
PROBE NUMBER: 8. GROUP NUMBER: 1

RUN NUMBER: 102



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=256.0 KPA(37.1 PSIA), COMB EXIT TEMP=675.9 DEG C(1248.6 DEG F)
AIR FLOW= 3.46 KG/SEC(7.62#/SEC), FUEL FLOW=179.5 KG/HR(395.8 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 9. GROUP NUMBER: I RUN NUMBER: 102



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: TF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

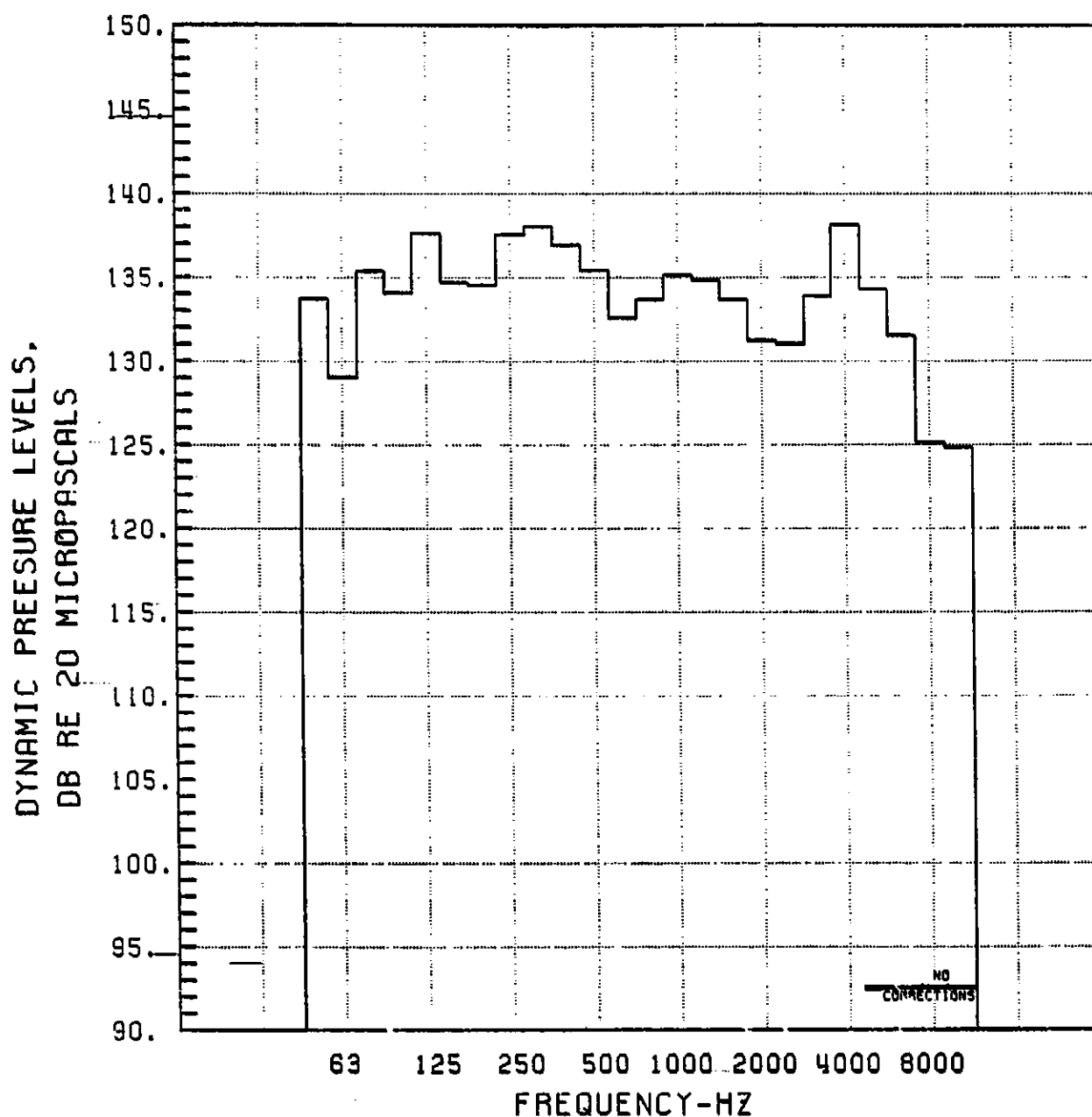
INLET PRESS=256.0 KPA(37.1 PSIA), COMB EXIT TEMP=675.9 DEG C(1248.6 DEG F)

AIR FLOW= 3.45 KG/SEC(7.62#/SEC), FUEL FLOW=179.5 KG/HR(395.8 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 10. GROUP NUMBER: I

RUN NUMBER: 102



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=310.9 KPA(45.1 PSIA), COMB EXIT TEMP=688.6 DEG C(1271.5 DEG F)

AIR FLOW= 4.30 KG/SEC(9.49*/SEC), FUEL FLOW=220.8 KG/HR(486.7 */HR)

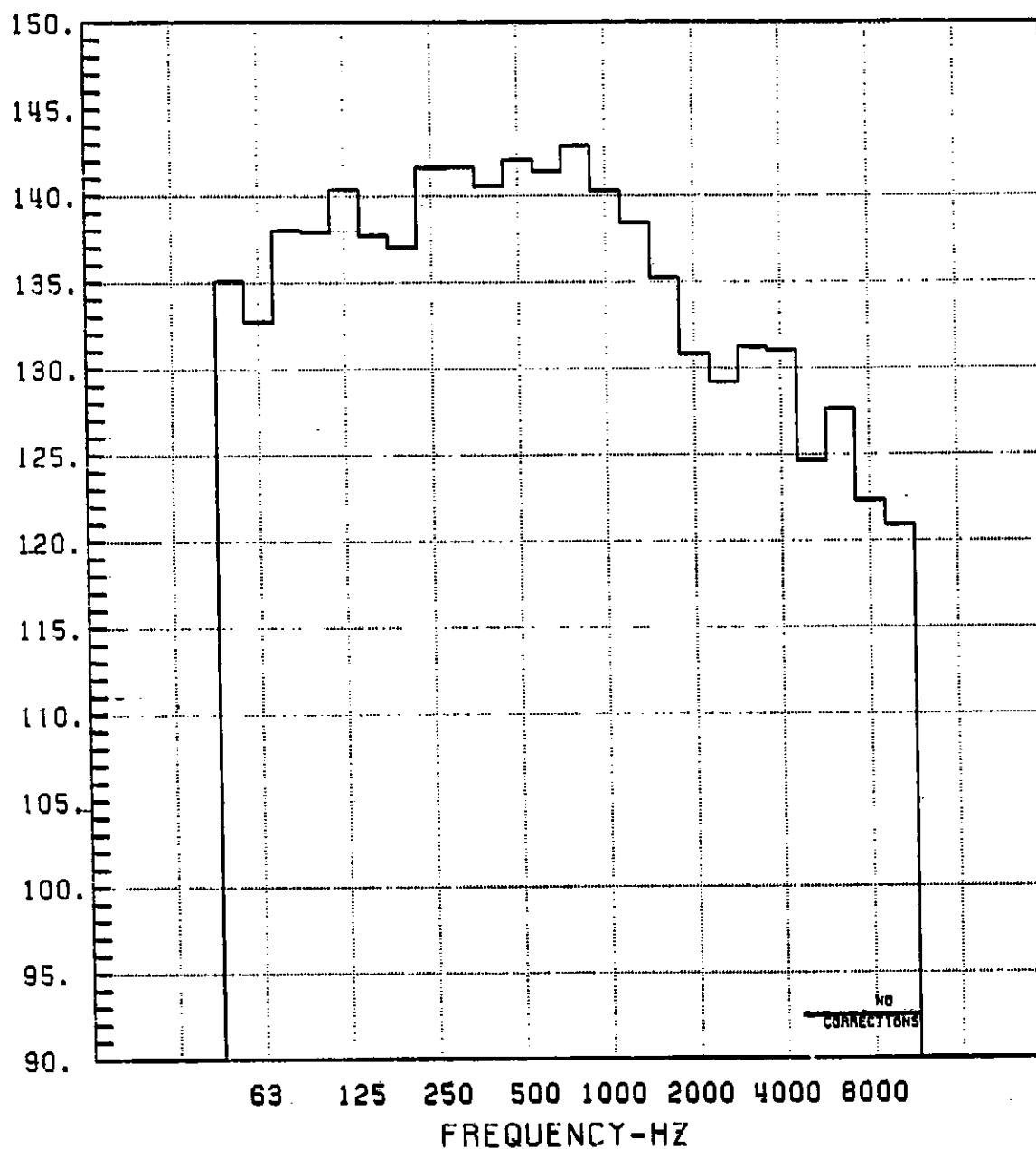
TEST DATE: FEB. 22, 1981

PROBE NUMBER: 1.

GROUP NUMBER: I

RUN NUMBER: 103

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=310.9 KPA(45.1 PSIA), COMB EXIT TEMP=688.6 DEG C(1271.5 DEG F)

AIR FLOW= 4.30 KG/SEC(9.49*/SEC), FUEL FLOW=220.8 KG/HR(486.7 */HR)

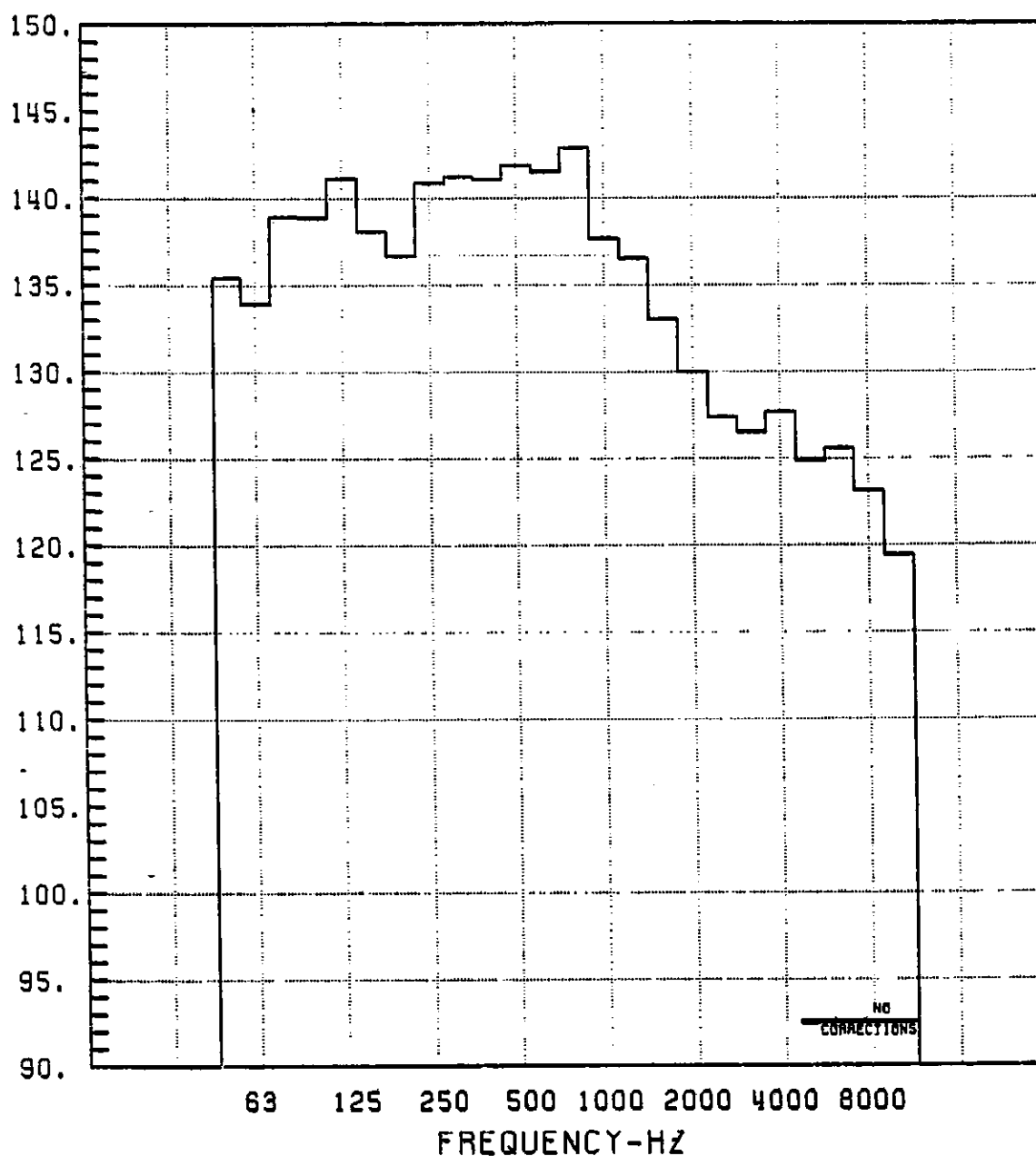
TEST DATE: FEB. 22, 1981

PROBE NUMBER: 2.

GROUP NUMBER: I

RUN NUMBER: 103

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=310.9 KPA(45.1 PSIA), COMB EXIT TEMP=688.6 DEG C(1271.5 DEG F)

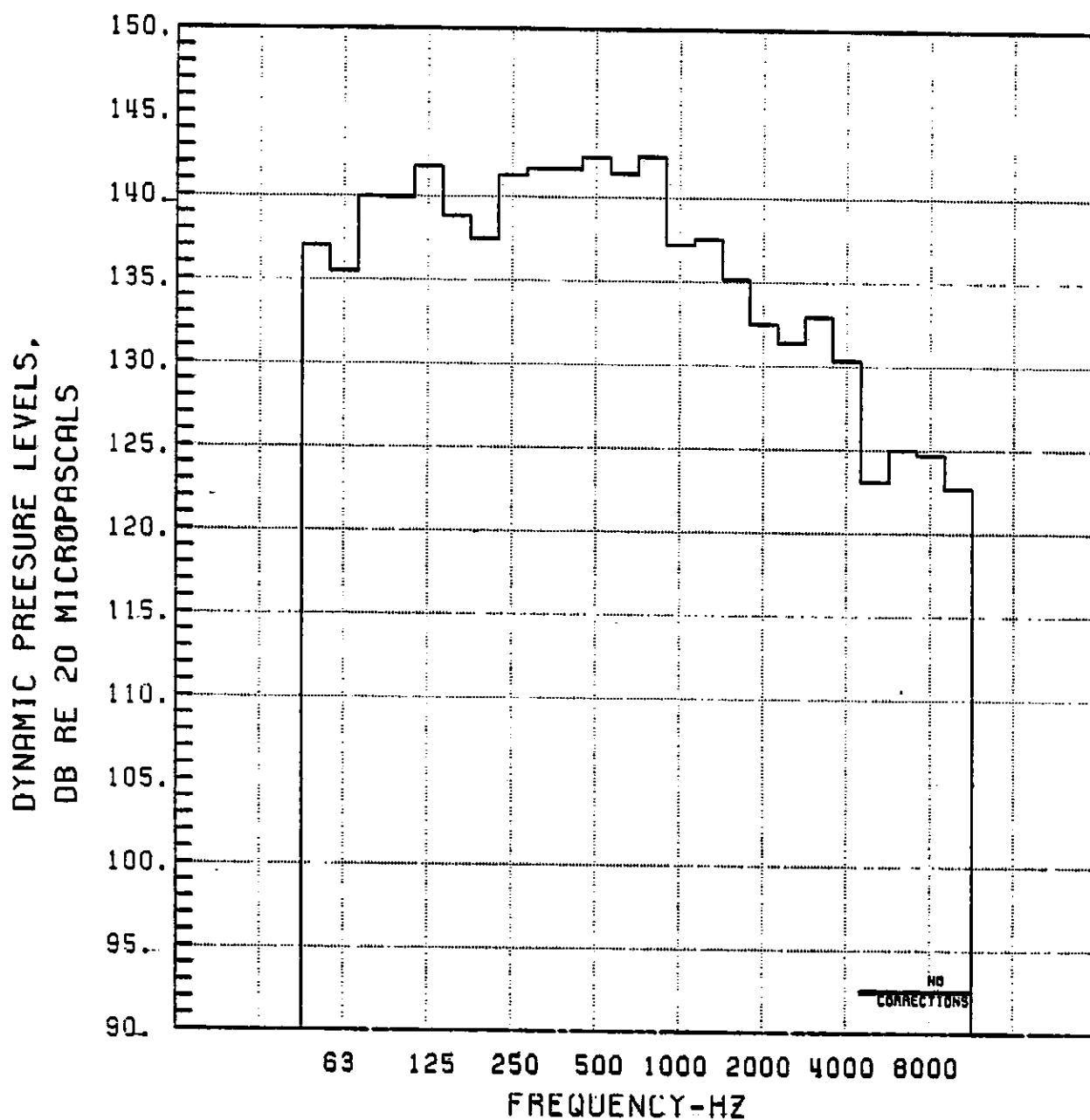
AIR FLOW= 4.30 KG/SEC(9.49*/SEC), FUEL FLOW=220.9 KG/HR(486.7 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 3.

GROUP NUMBER: I

RUN NUMBER: 103



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=310.9 KPA(45.1 PSIA), COMB EXIT TEMP=688.6 DEG C(1271.5 DEG F)

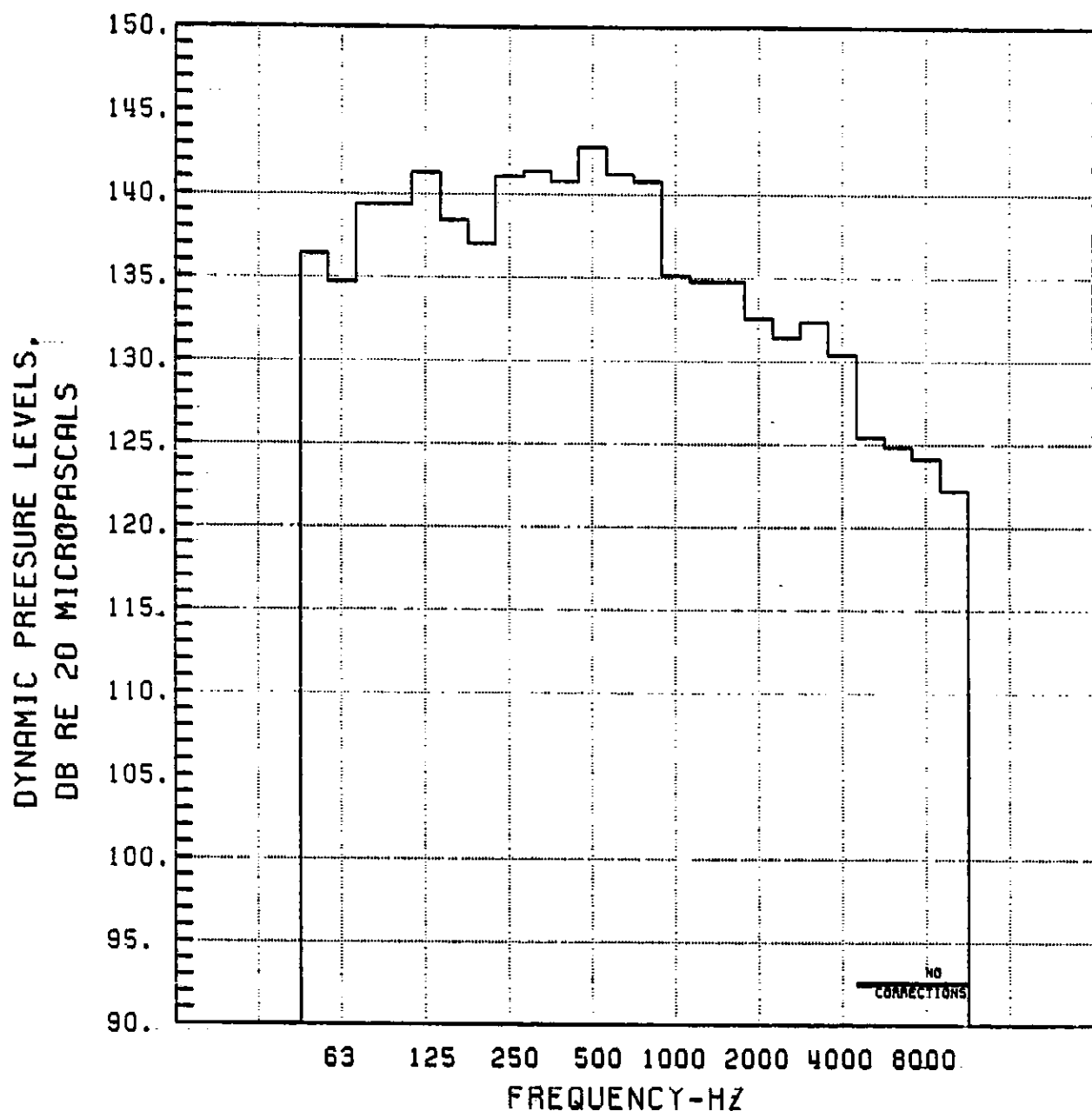
AIR FLOW= 4.30 KG/SEC(9.49*/SEC), FUEL FLOW=220.8 KG/HR(486.7 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 4.

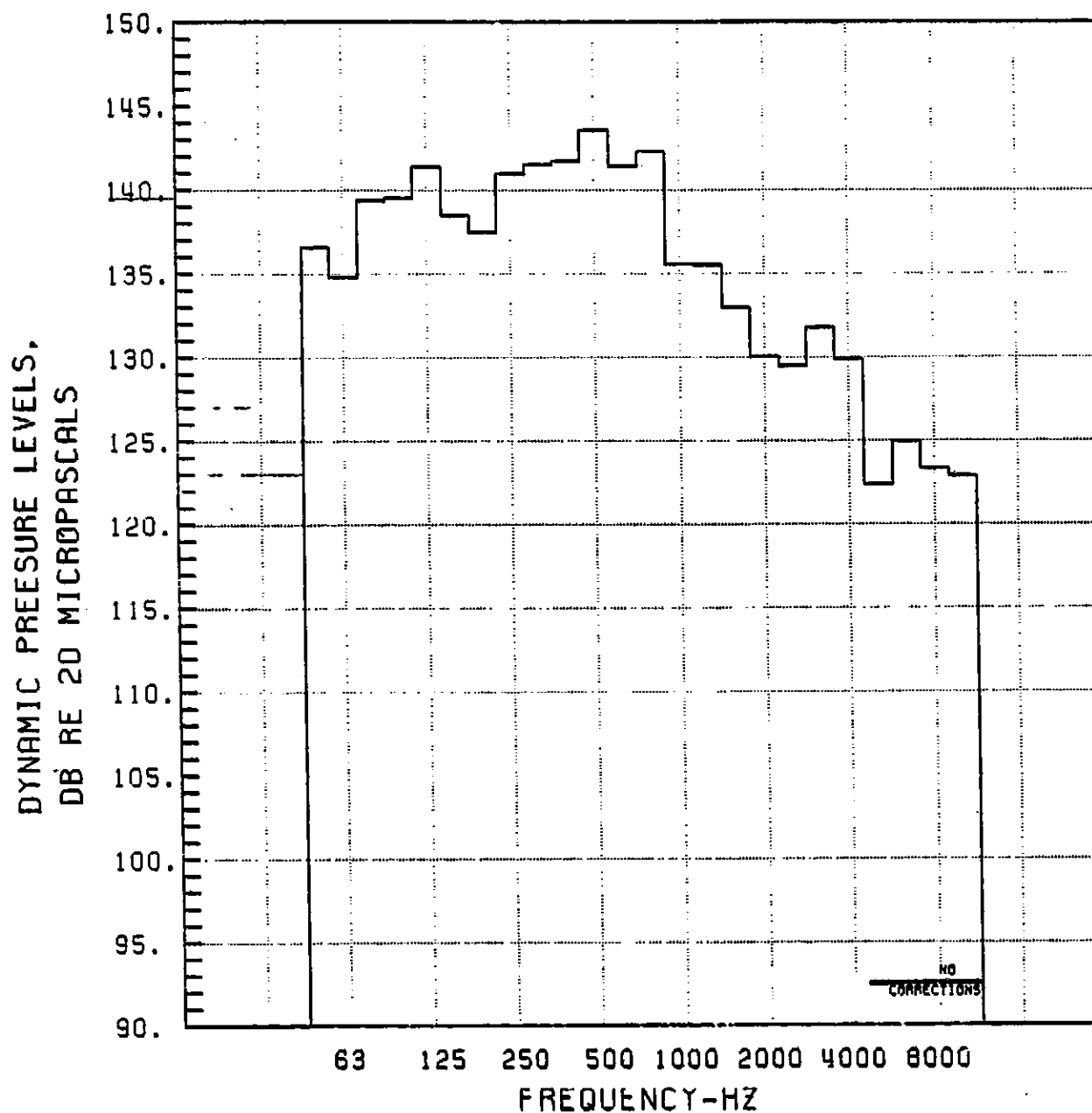
GROUP NUMBER: I

RUN NUMBER: 103



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=310.9 KPA(45.1 PSIA), COMB EXIT TEMP=688.6 DEG C(1271.5 DEG F)
AIR FLOW= 4.30 KG/SEC(9.49*/SEC), FUEL FLOW=220.8 KG/HR(486.7 */HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 5. GROUP NUMBER: I RUN NUMBER: 103



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=310.9 KPA(45.1 PSIA), COMB EXIT TEMP=688.6 DEG C(1271.5 DEG F)

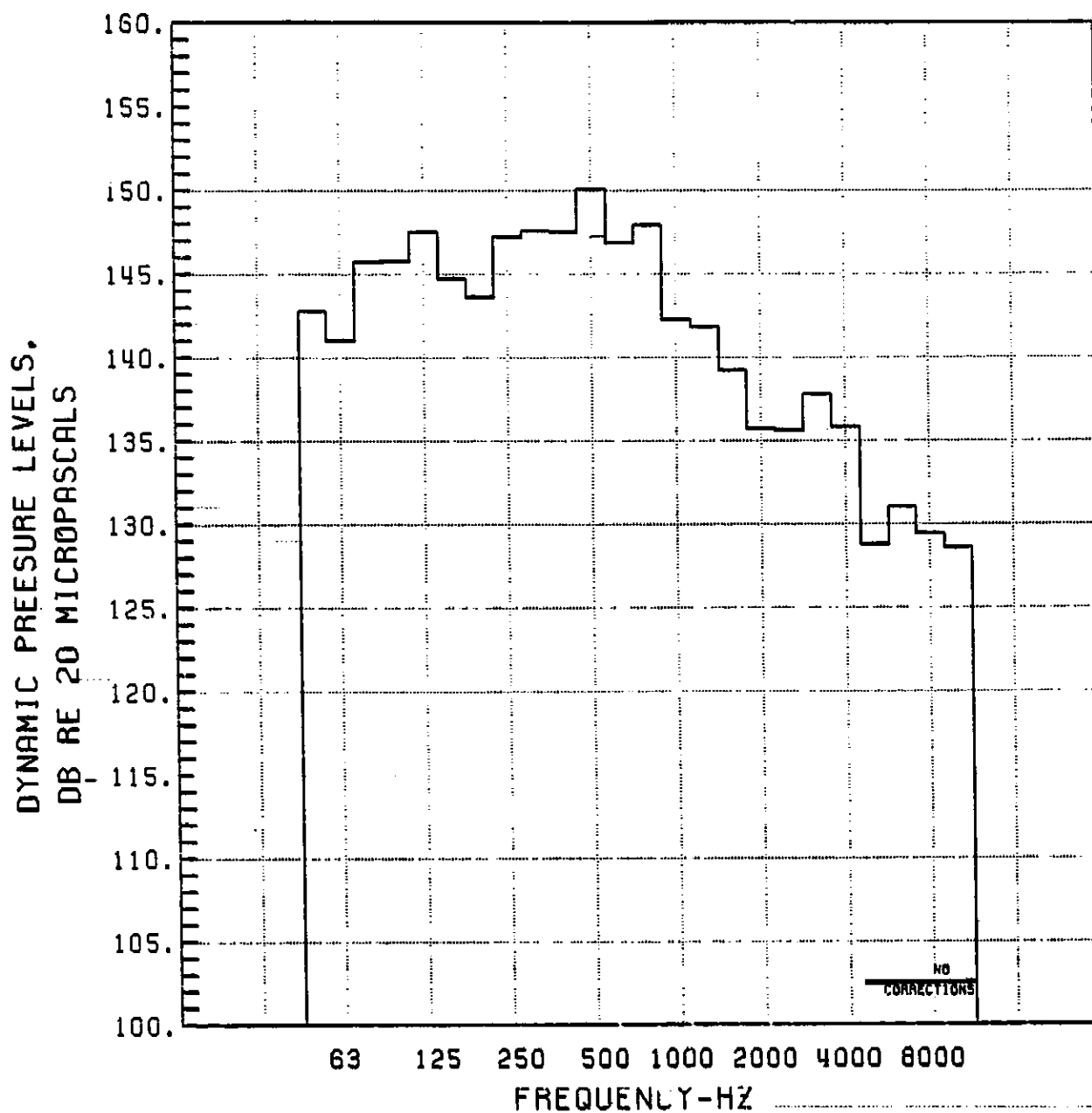
AIR FLOW= 4.30 KG/SEC(9.49#/SEC), FUEL FLOW=220.8 KG/HR(486.7 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 6.

GROUP NUMBER: 1

RUN NUMBER: 103



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: TF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

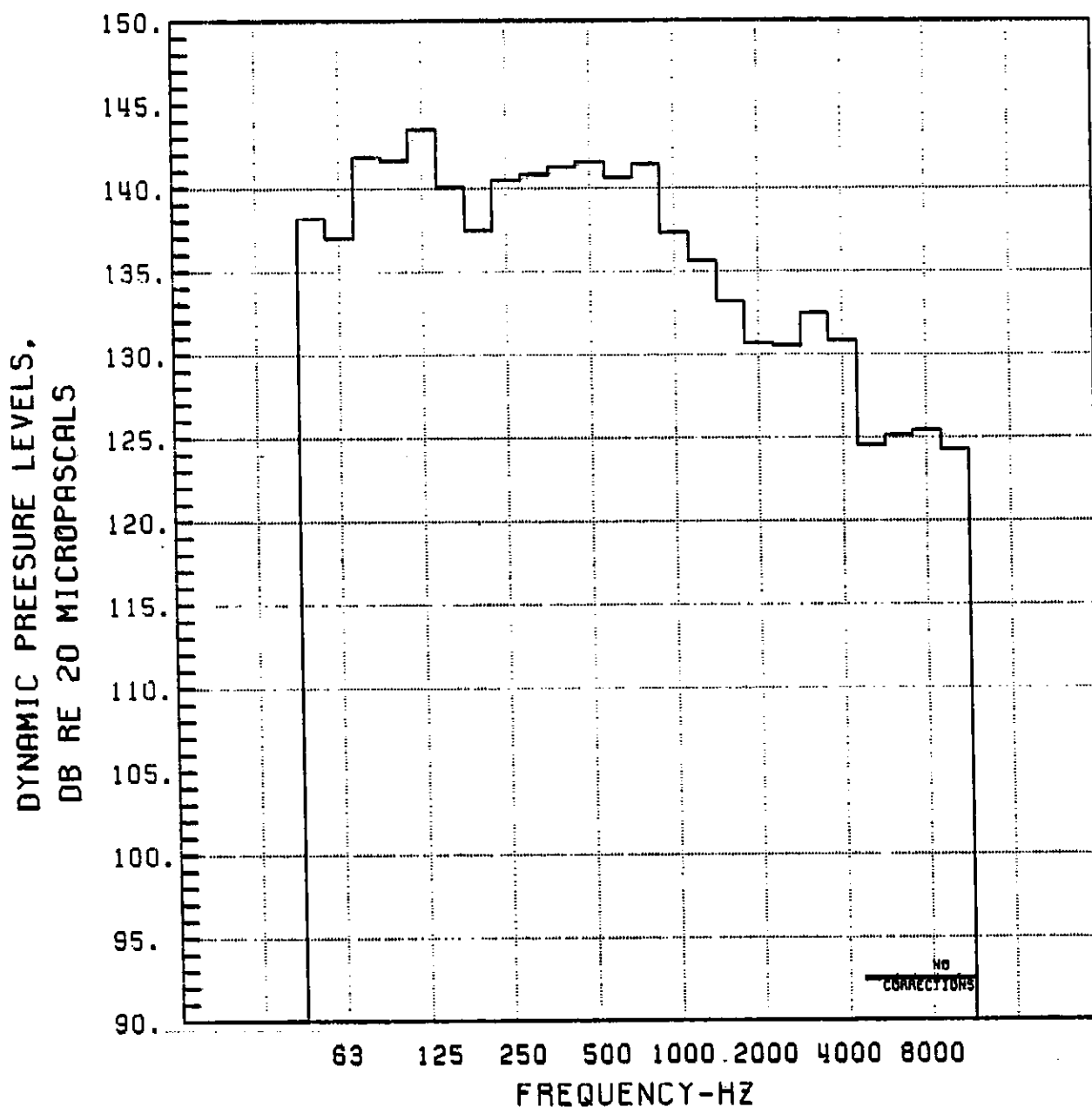
INLET PRESS=310.9 KPA(45.1 PSIA), COMB EXIT TEMP=688.6 DEG C(1271.5 DEG F)

AIR FLOW= 4.30 KG/SEC(9.49#/SEC), FUEL FLOW=220.8 KG/HR(486.7 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 7. GROUP NUMBER: 1

RUN NUMBER: 103



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: TF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=310.9 KPA(45.1 PSIA), COMB EXIT TEMP=680.6 DEG C(1271.5 DEG F)

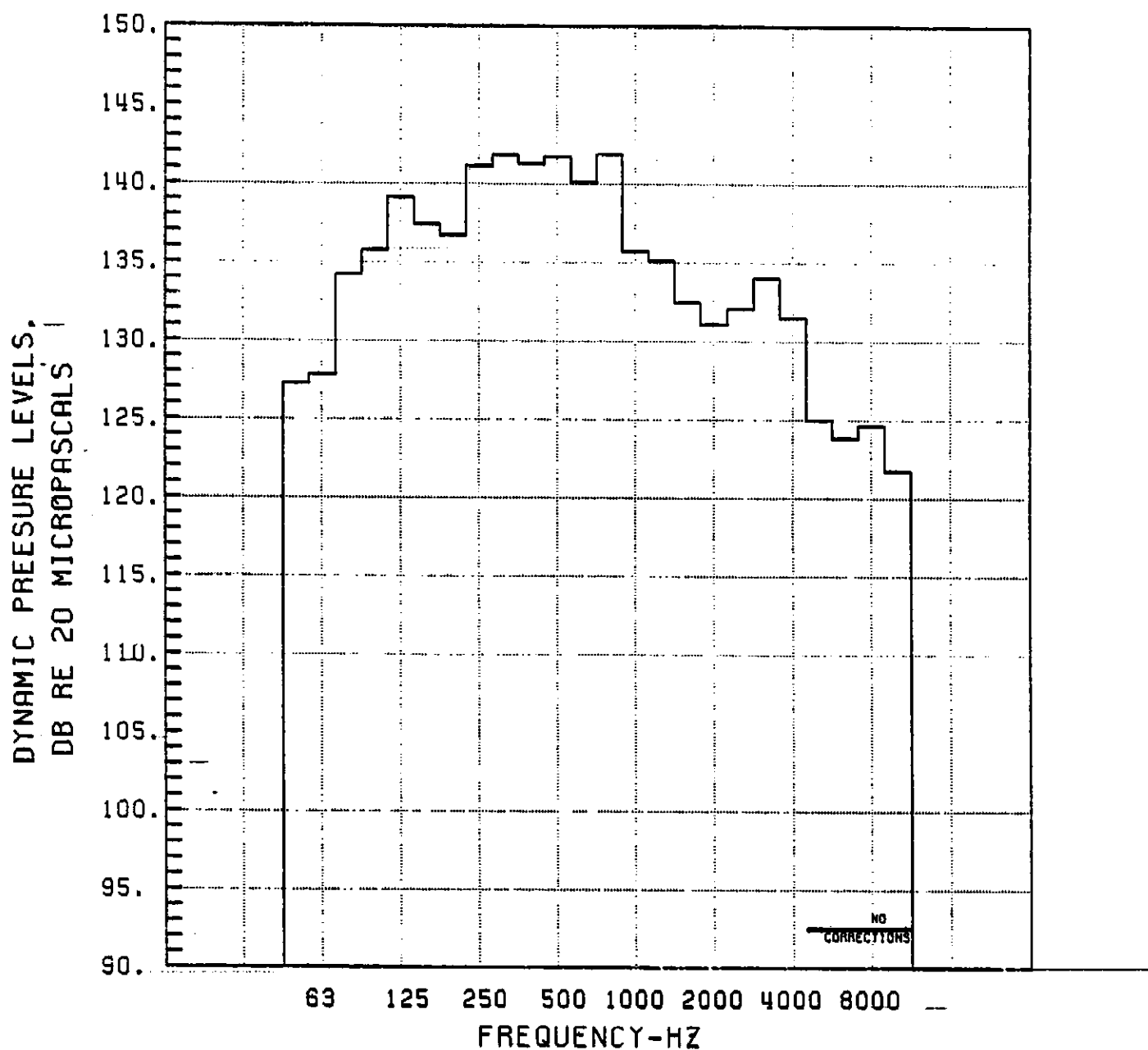
AIR FLOW= 4.30 KG/SEC(9.49#/SEC), FUEL FLOW=220.8 KG/HR(486.7 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 8.

GROUP NUMBER: I

RUN NUMBER: 103



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

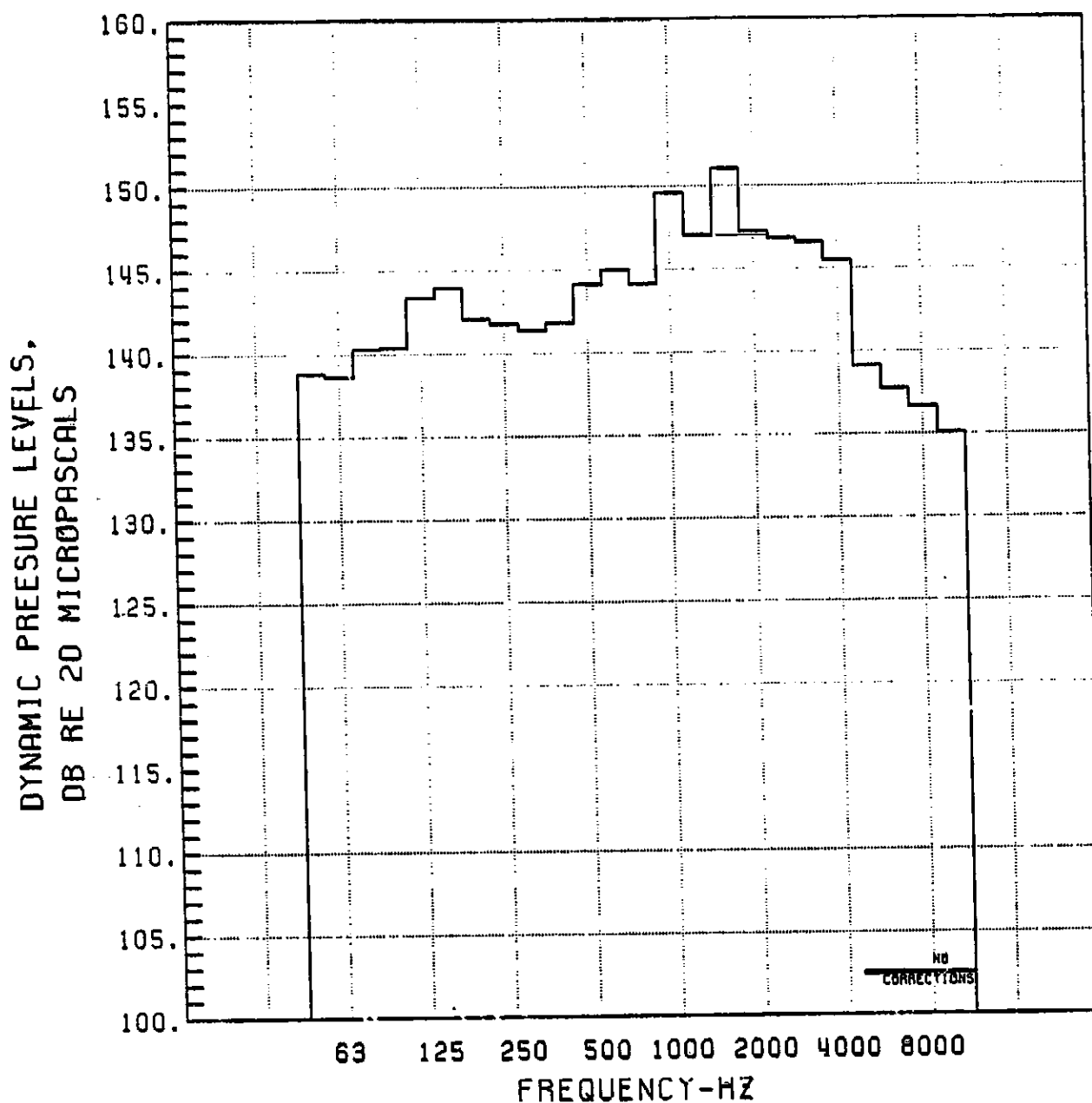
INLET PRESS=310.9 KPA(45.1 PSIA), COMB EXIT TEMP=688.6 DEG C(1271.5 DEG F)

AIR FLOW= 4.30 KG/SEC(9.49#/SEC), FUEL FLOW=220.8 KG/HR(486.7 #/HR)

TEST DATE: FEB. 22, 1981

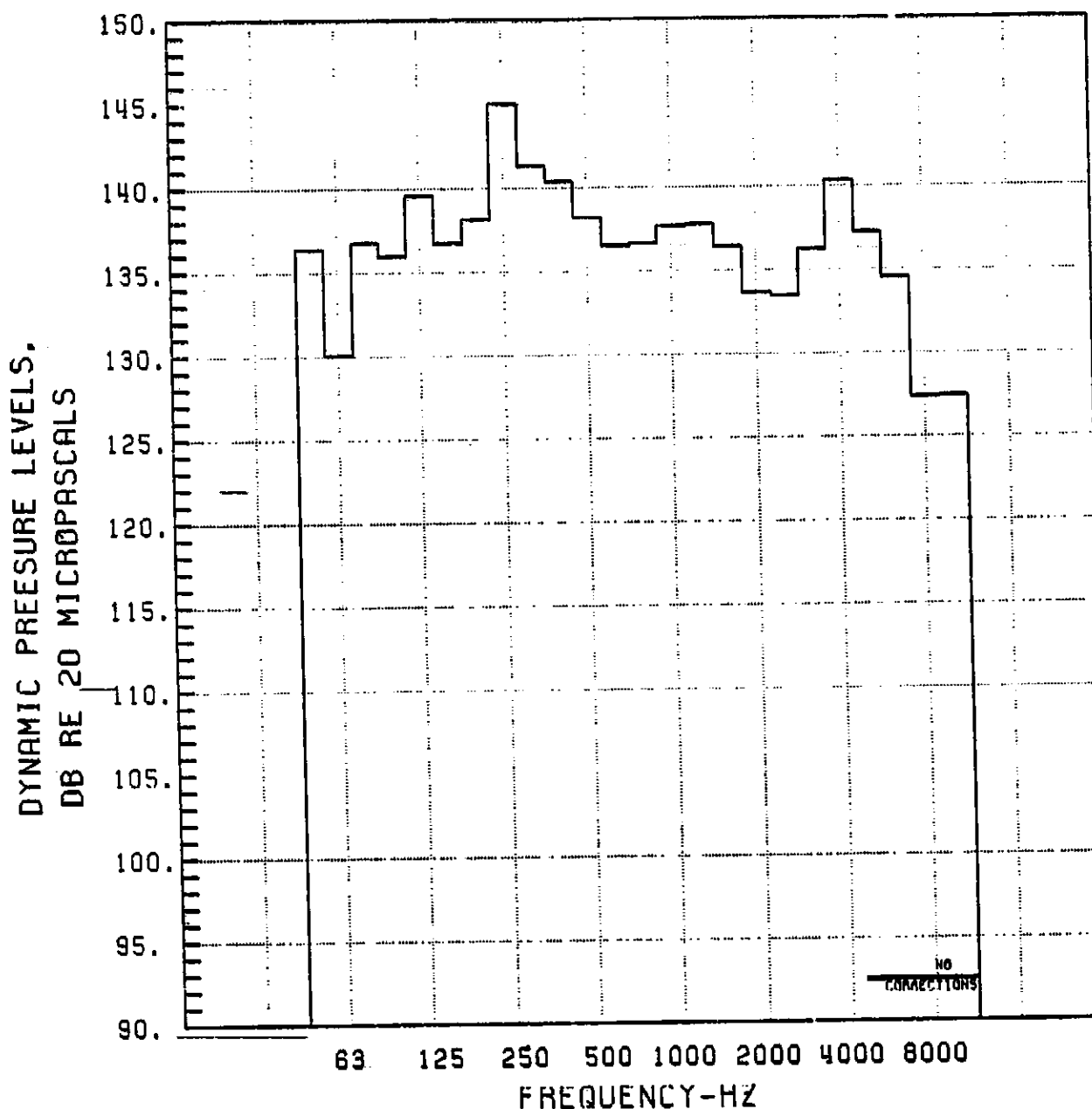
PROBE NUMBER: 9, GROUP NUMBER: I

RUN NUMBER: 103



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=310.9 KPA(45.1 PSIA), COMB EXIT TEMP=688.6 DEG C(1271.5 DEG F)
AIR FLOW= 4.30 KG/SEC(9.49#/SEC), FUEL FLOW=220.8 KG/HR(486.7 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 10. GROUP NUMBER: 1 RUN NUMBER: 103



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

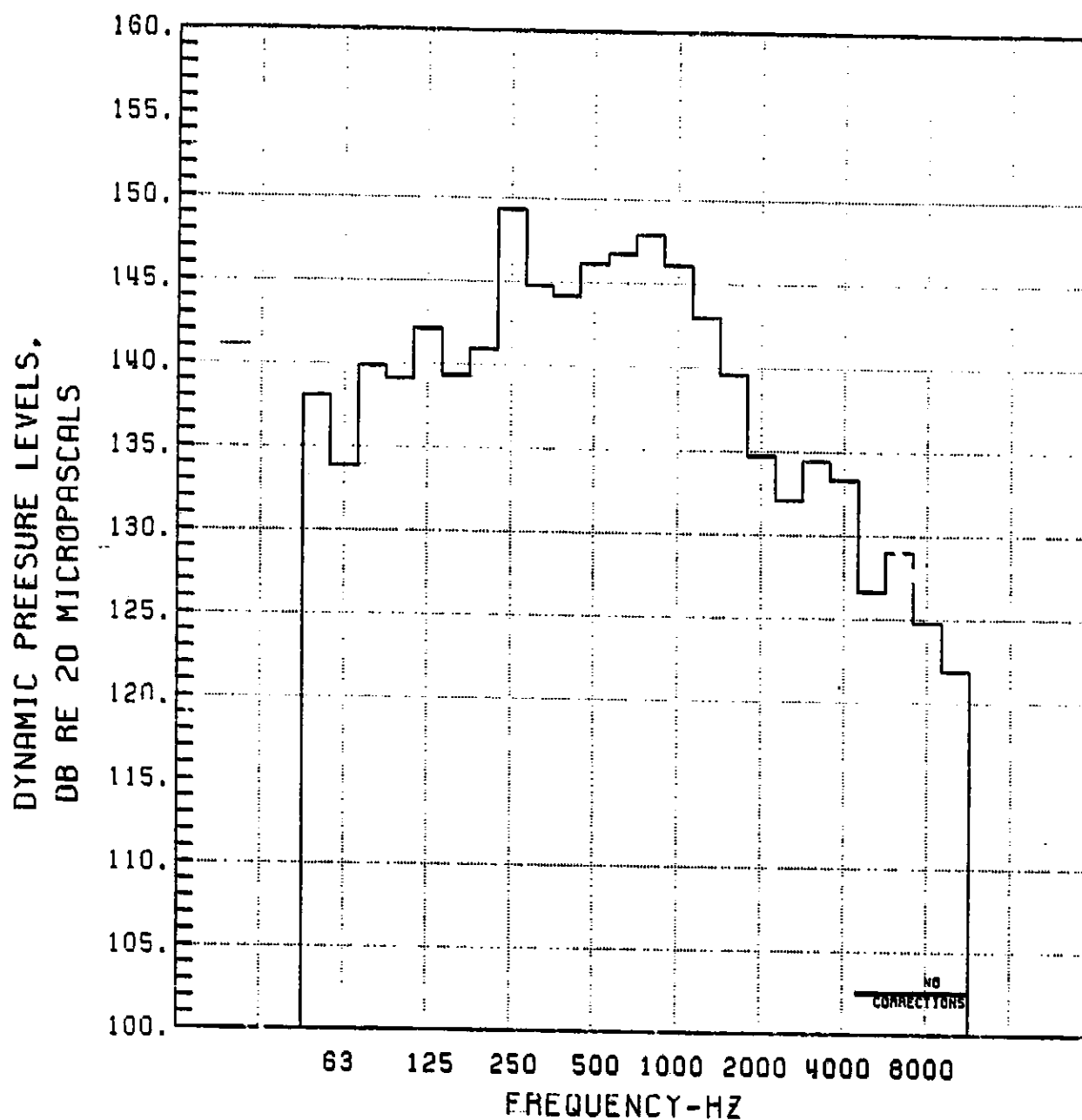
INLET PRESS=374.2 KPA(54.3 PSIA), COMB EXIT TEMP=722.0 DEG C(1331.6 DEG F)

AIR FLOW= 5.06 KG/SEC(11.15#/SEC), FUEL FLOW=263.0 KG/HR(579.7 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 1. GROUP NUMBER: 1

RUN NUMBER: 106



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

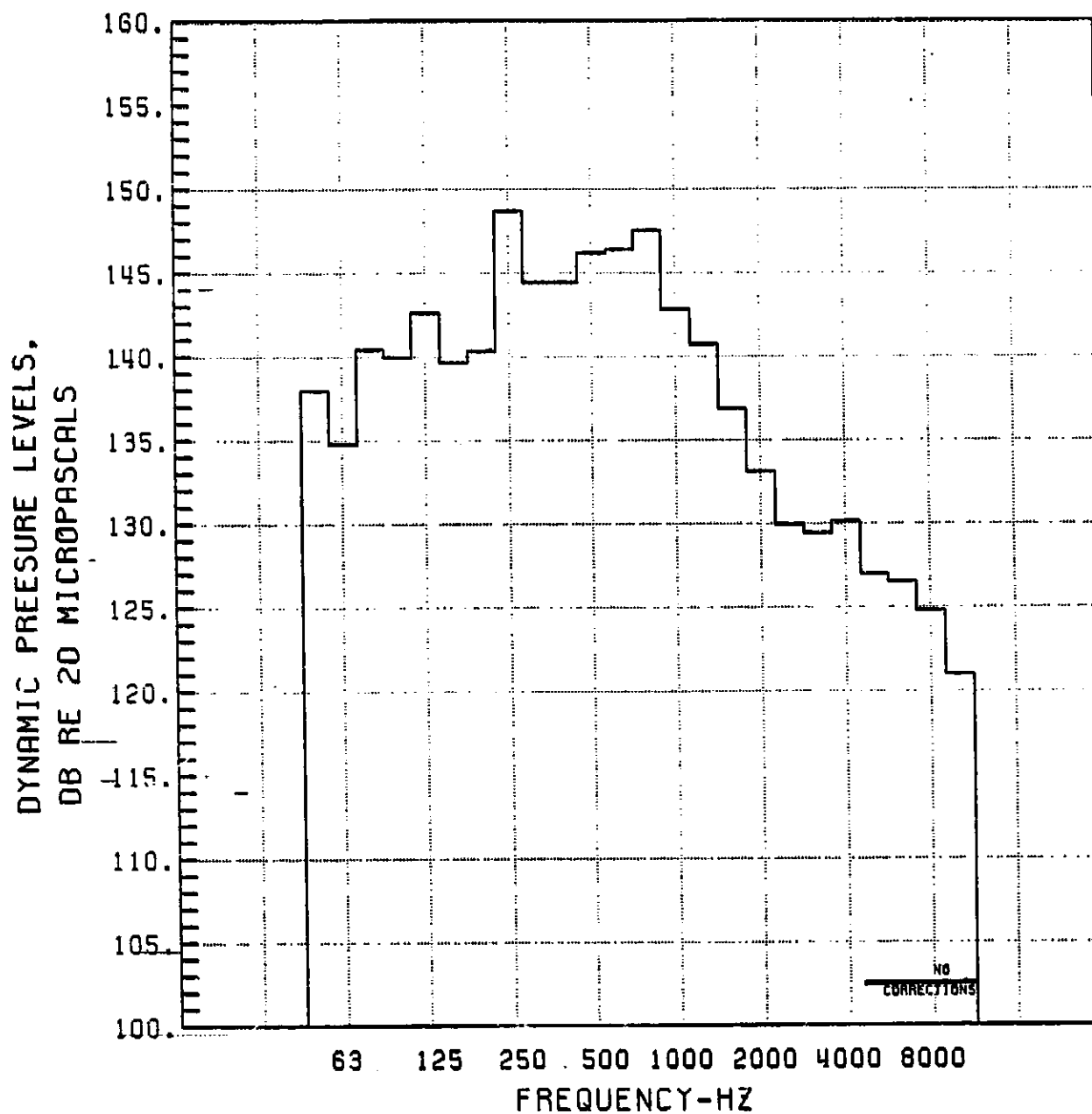
INLET PRESS=374.2 KPA(54.3 PSIA), COMB EX11 TEMP=722.0 DEG C(1331.6 DEG F)

AIR FLOW= 5.06 KG/SEC(11.15#/SEC), FUEL FLOW=263.0 KG/HR(579.7 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 2. GROUP NUMBER: 1

RUN NUMBER: 106



AVCO LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: TF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=374.2 KPA(54.3 PSIA), COMB EXIT TEMP=722.0 DEG C(1331.6 DEG F)

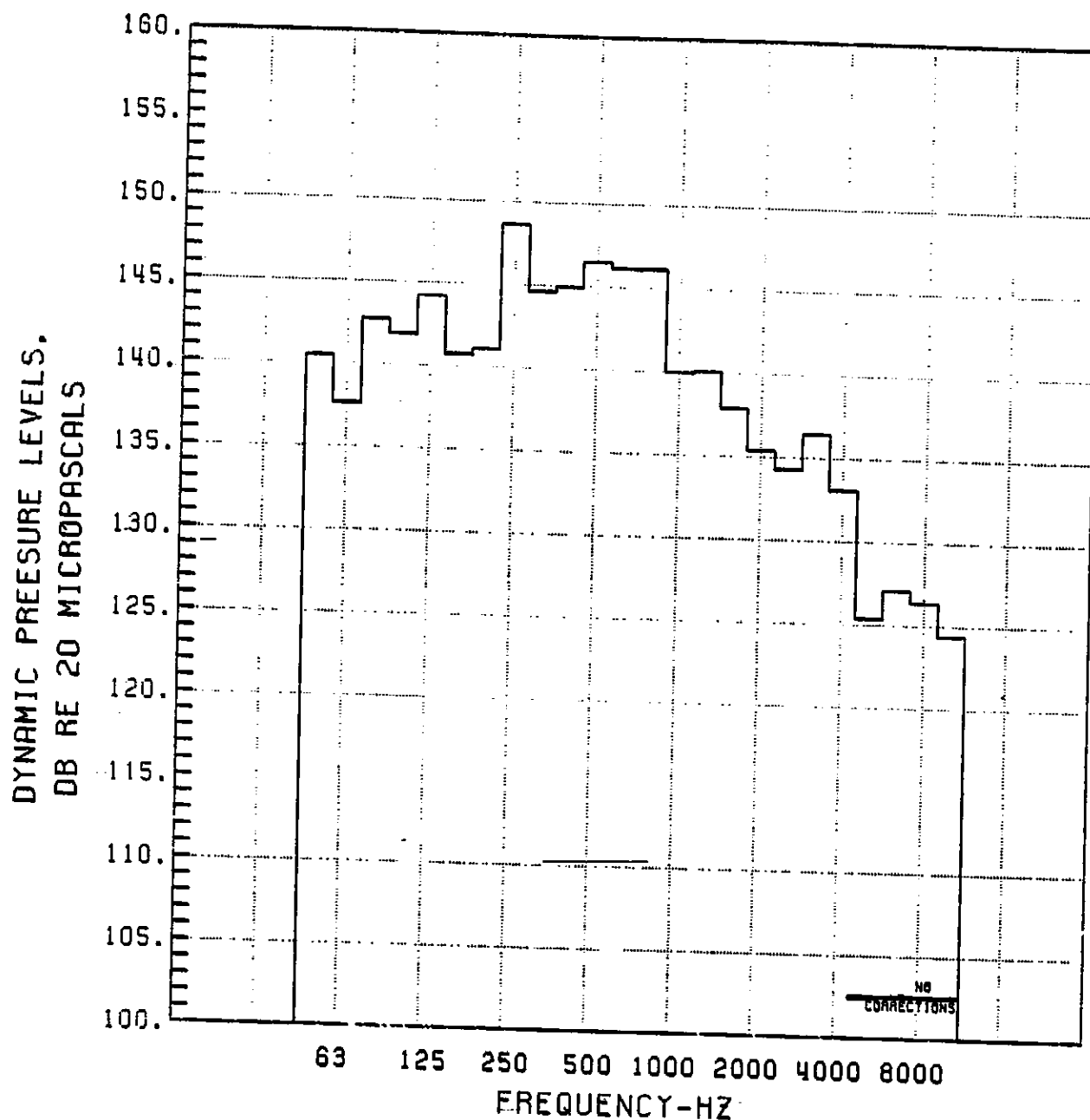
AIR FLOW= 5.06 KG/SEC(11.15*/SEC), FUEL FLOW=263.0 KC/HR(579.7 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 3.

GROUP NUMBER: I

RUN NUMBER: 106



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

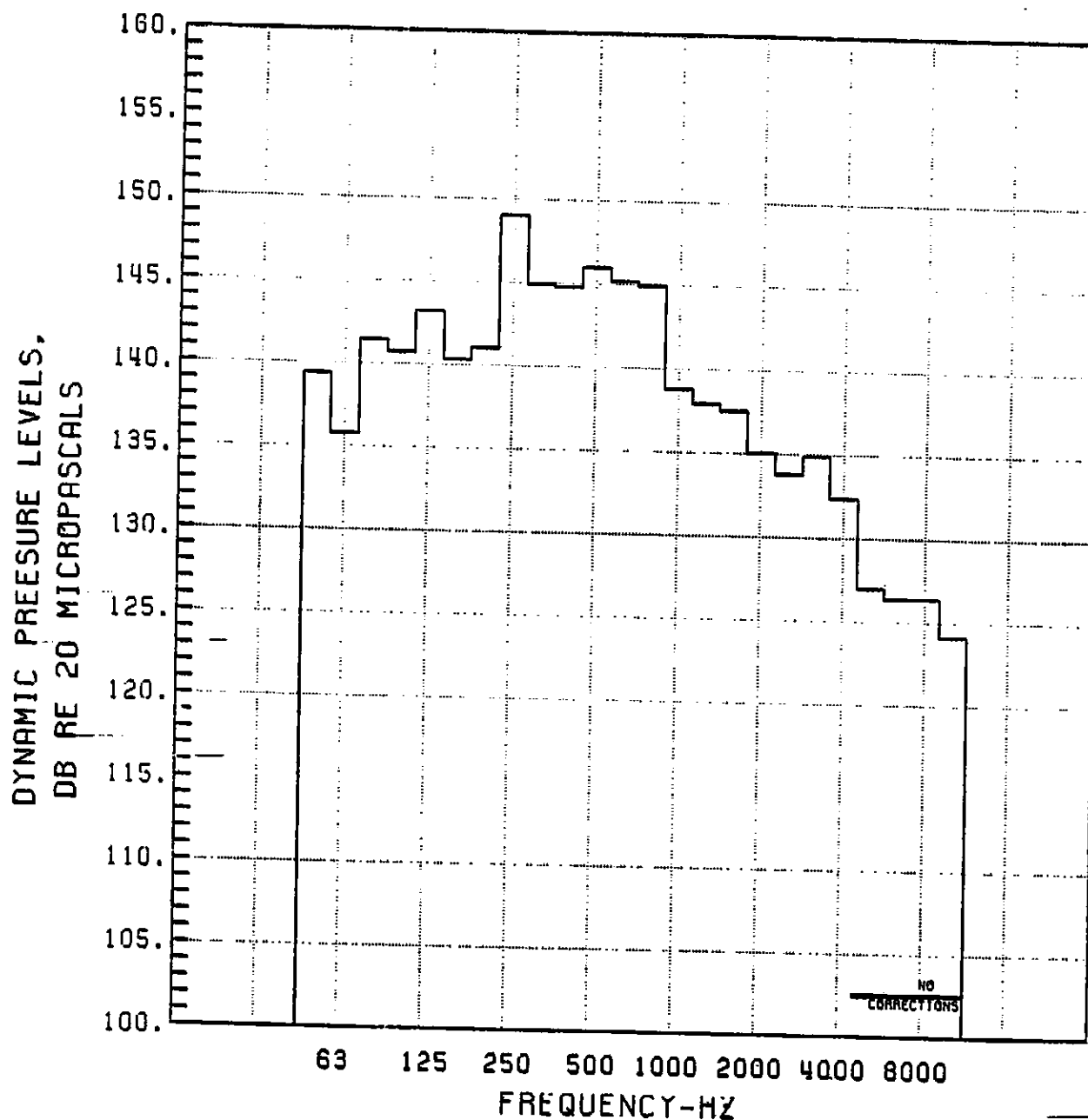
INLET PRESS=374.2 KPA(54.3 PSIA), COMB EX11 TEMP=722.0 DEG C(1331.6 DEG F)

AIR FLOW= 5.06 KG/SEC(11.15#/SEC), FUEL FLOW=263.0 KG/HR(579.7 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 4. GROUP NUMBER: 1

RUN NUMBER: 106



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=374.2 KPA(54.3 PSIA), COMB EXIT TEMP=722.0 DEG C(1331.6 DEG F)

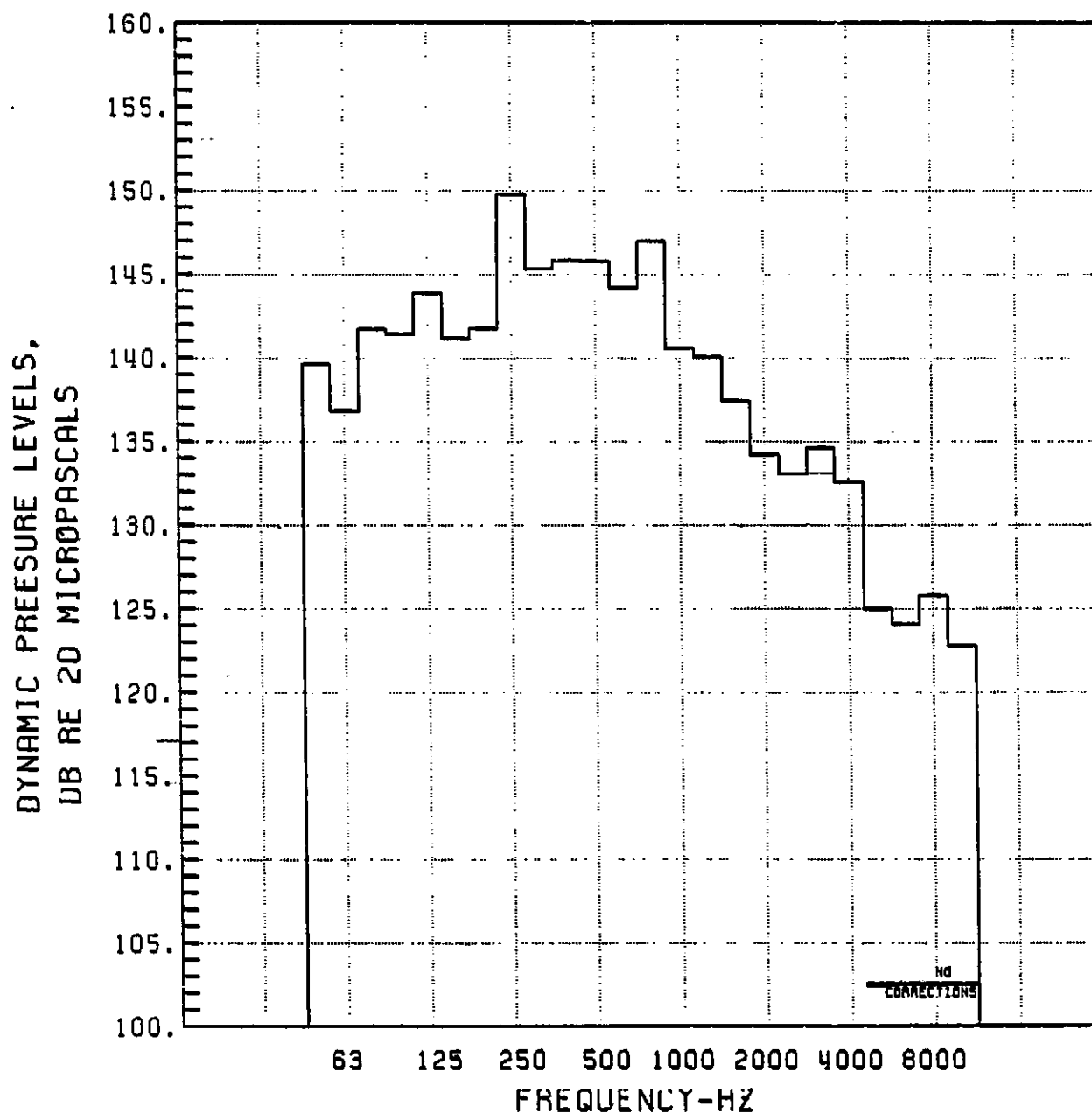
AIR FLOW= 5.06 KG/SEC(11.15#/SEC), FUEL FLOW=263.0 KG/HR(579.7 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 5.

GROUP NUMBER: 1

RUN NUMBER: 106



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=374.2 KPA(54.3 PSIA), COMB EXIT TEMP=722.0 DEG C(1331.6 DEG F)

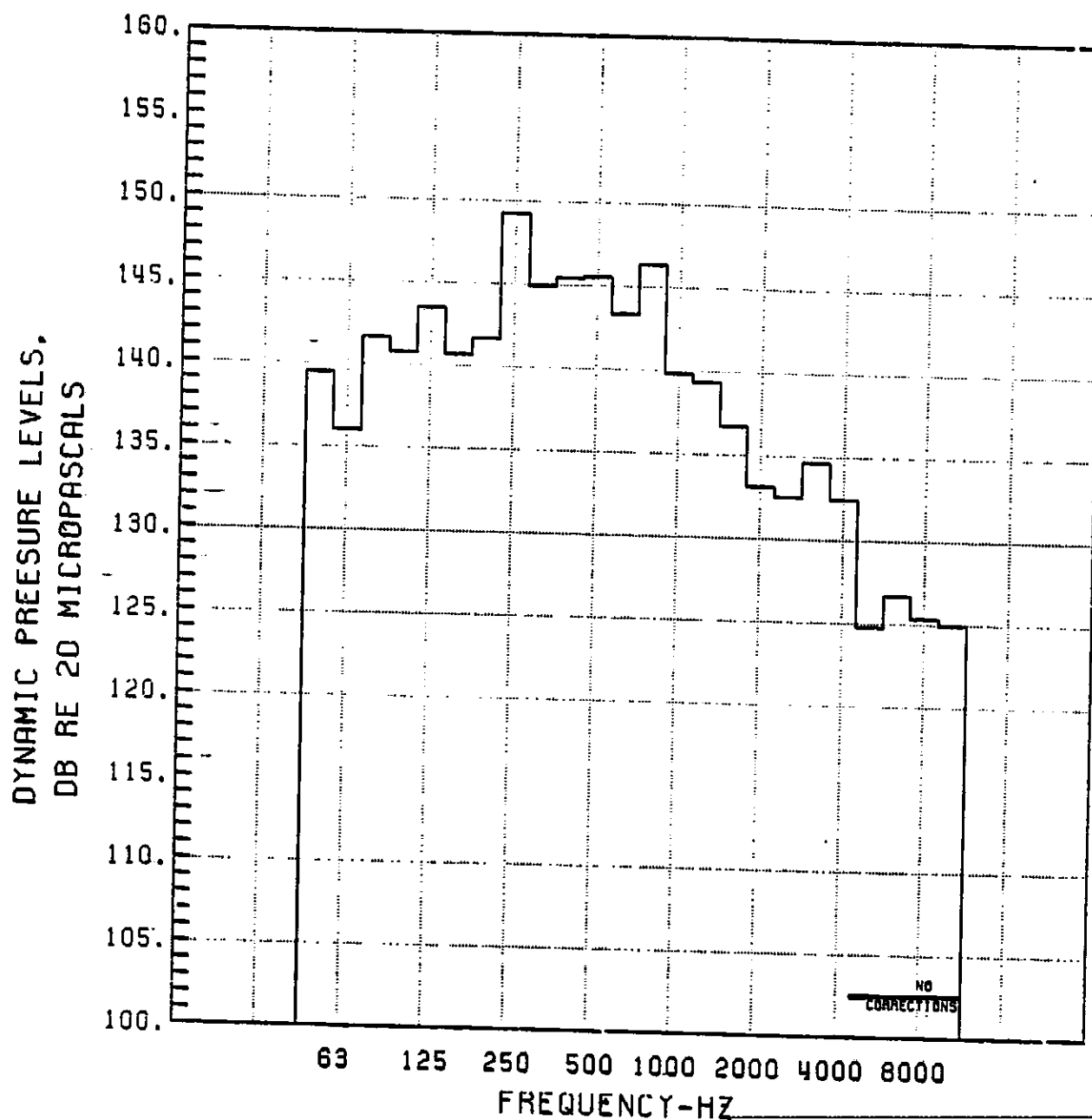
AIR FLOW= 5.06 KG/SEC(11.15*/SEC), FUEL FLOW=263.0 KG/HR(579.7 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 6.

GROUP NUMBER: I

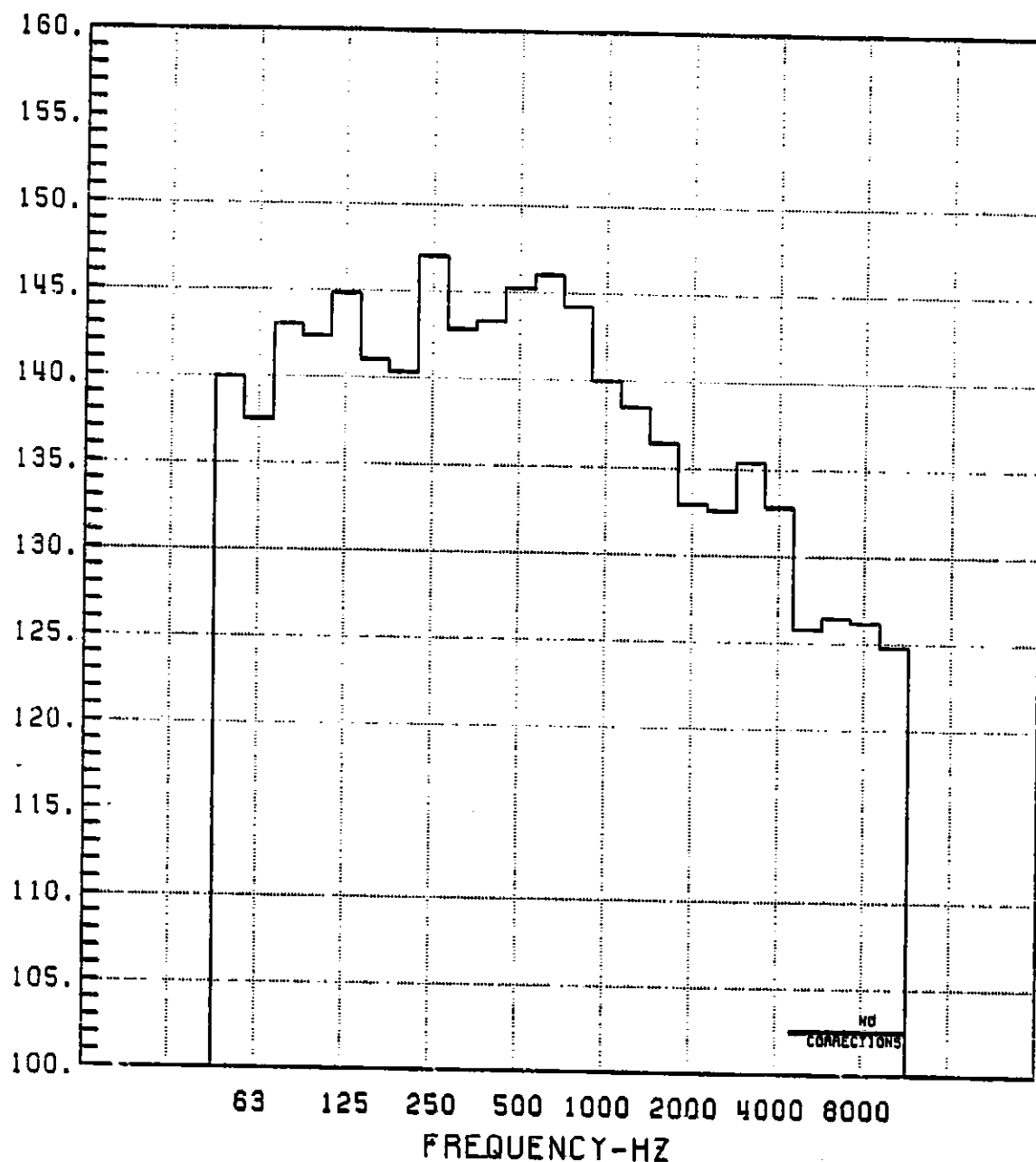
RUN NUMBER: 106



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: TF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=374.2 KPA(54.3 PSIA), COMB EXIT TEMP=722.0 DEG C(1331.6 DEG F)
AIR FLOW= 5.06 KG/SEC(11.15#/SEC), FUEL FLOW=263.0 KG/HR(579.7 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 7. GROUP NUMBER: I RUN NUMBER: 106

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=374.2 KPA(54.3 PSIA), COMB EXIT TEMP=722.0 DEG C(1331.6 DEG F)

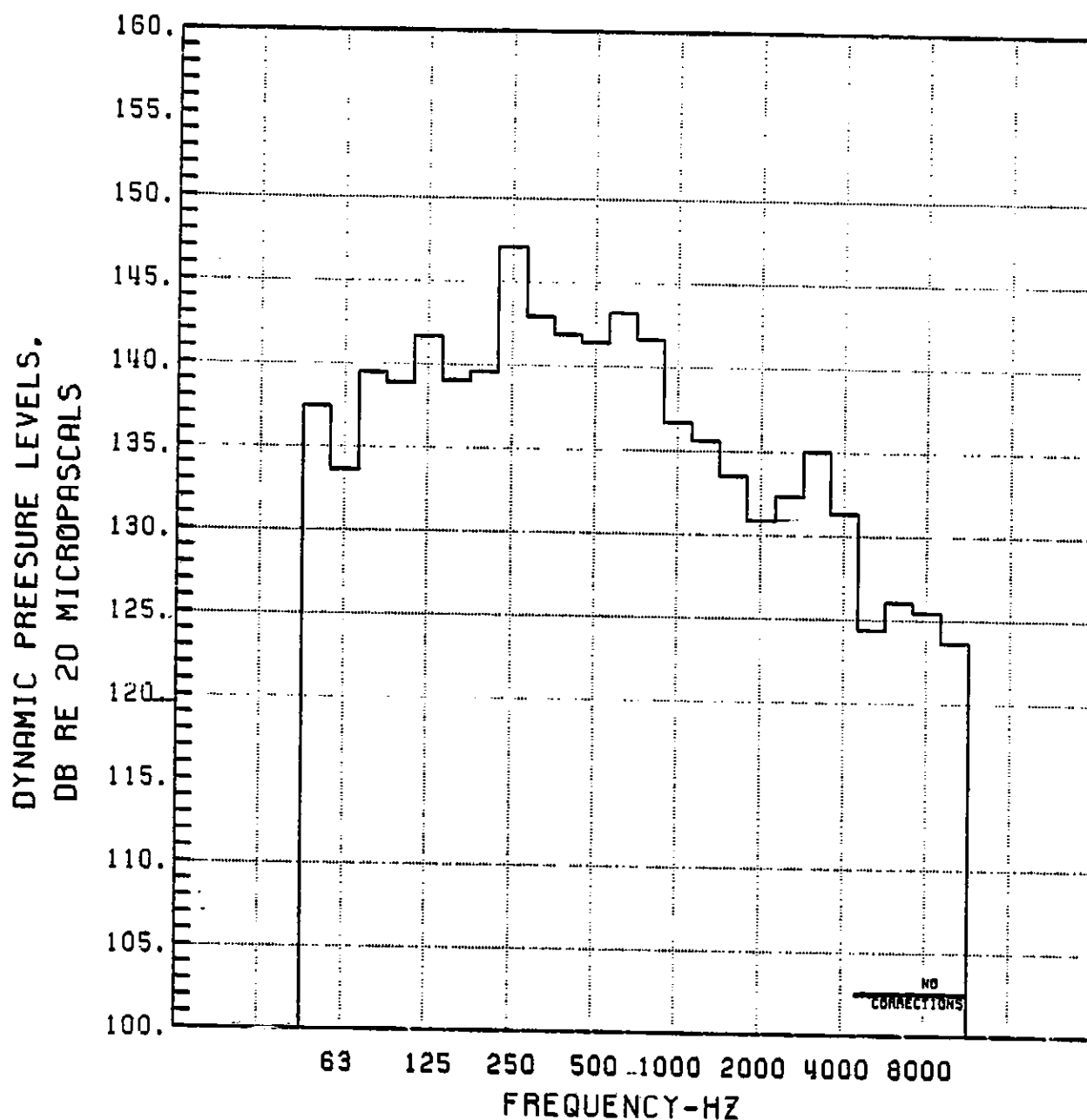
AIR FLOW= 5.06 KG/SEC(11.15#/SEC), FUEL FLOW=263.0 KG/HR(579.7 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 8.

GROUP NUMBER: 1

RUN NUMBER: 106



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=374.2 KPA(54.3 PSIA), COMB EXIT TEMP=722.0 DEG C(1331.6 DEG F)

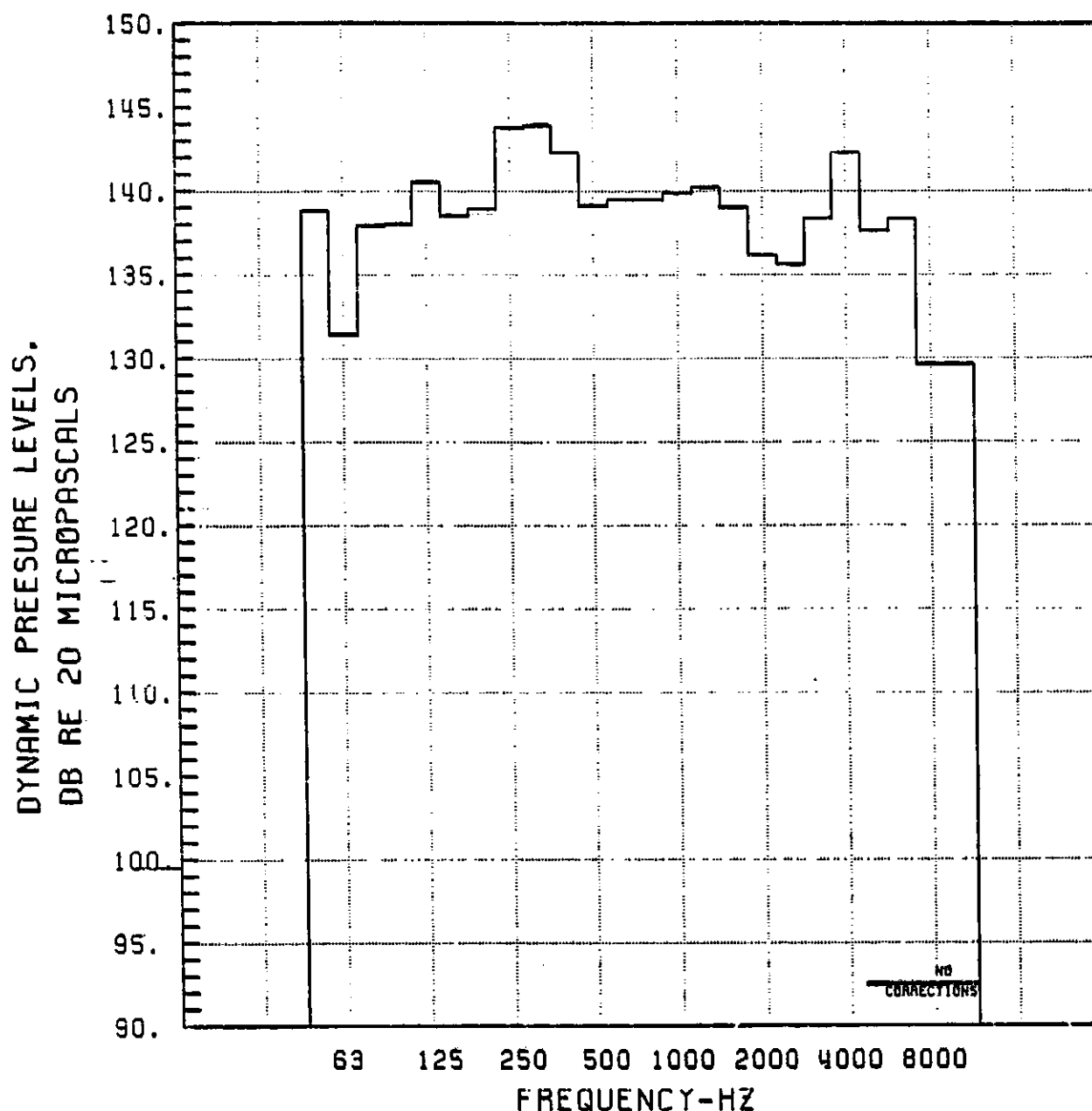
AIR FLOW= 5.06 KG/SEC(11.15#/SEC), FUEL FLOW=263.0 KG/HR(579.7 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 9.

GROUP NUMBER: I

RUN NUMBER: 106



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=442.6 KPA(64.2 PSIA), COMB EXIT TEMP=824.9 DEG C(1516.8 DEG F)

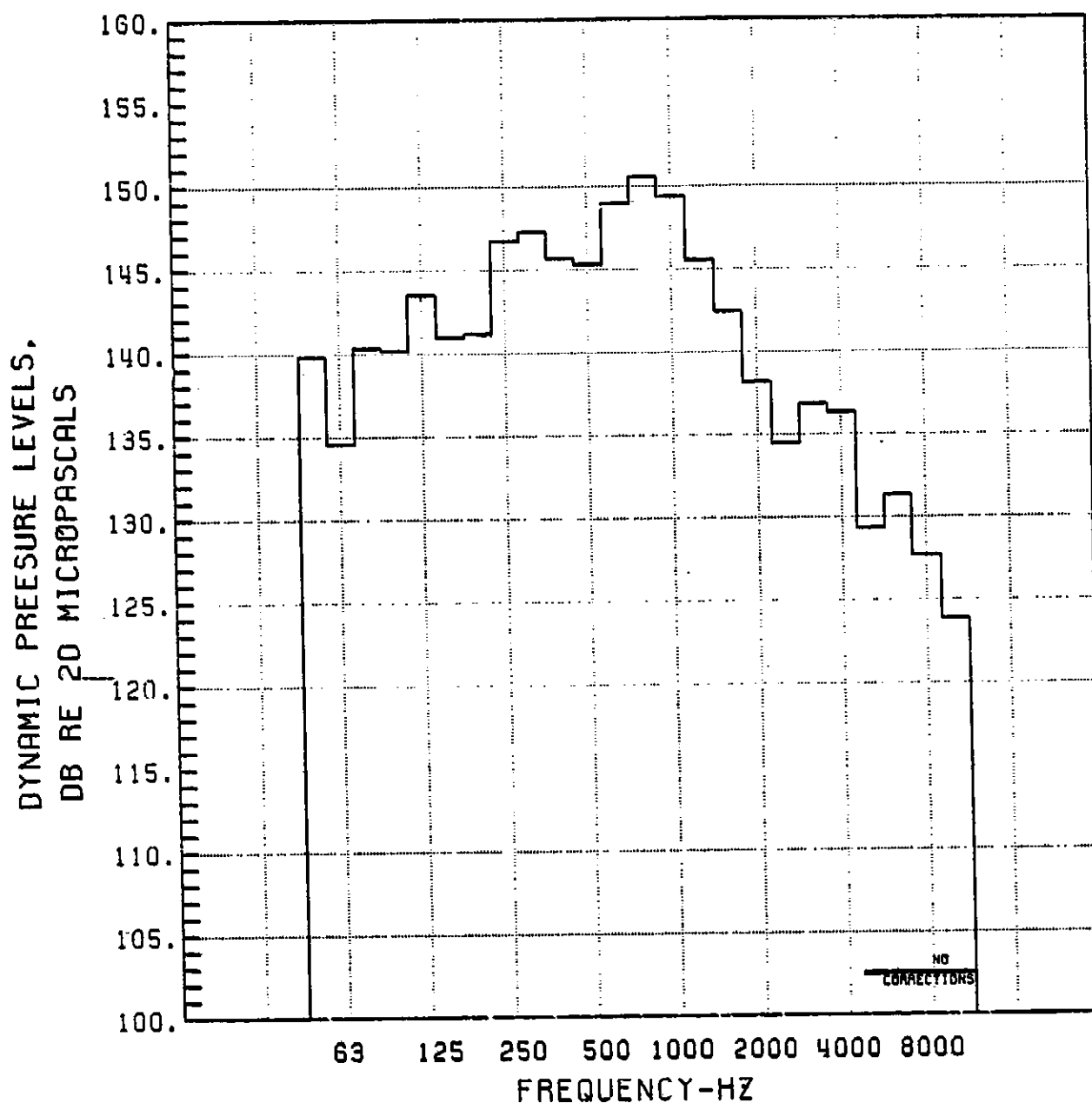
AIR FLOW= 5.85 KG/SEC(12.90#/SEC), FUEL FLOW=348.9 KG/HR(769.2 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 1.

GROUP NUMBER: I

RUN NUMBER: 107



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

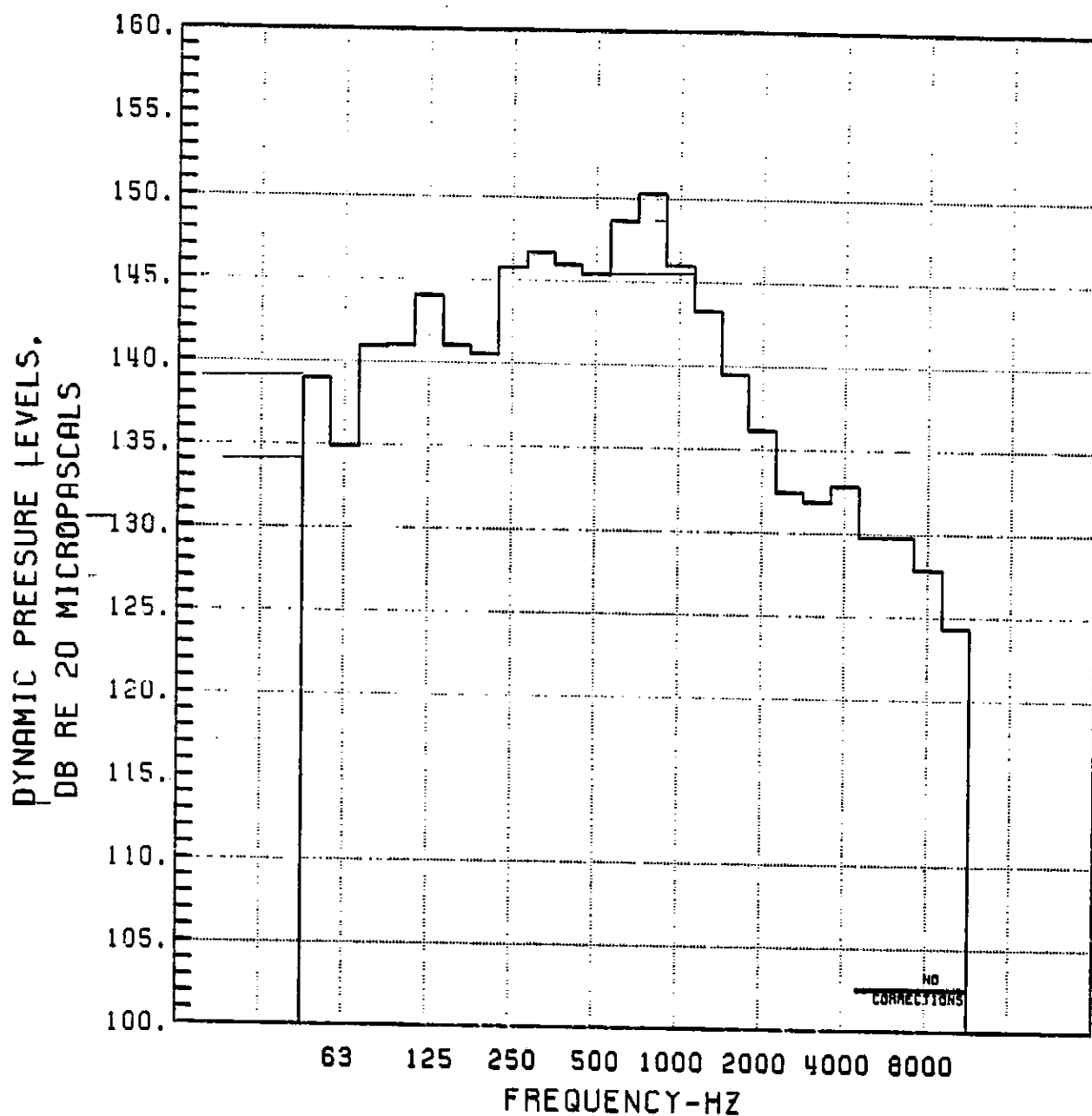
INLET PRESS=442.6 KPA(64.2 PSIA), COMB EXIT TEMP=824.9 DEG C(1516.8 DEG F)

AIR FLOW= 5.85 KG/SEC(12.90#/SEC), FUEL FLOW=348.9 KG/HR(769.2 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 2. GROUP NUMBER: I

RUN NUMBER: 107



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

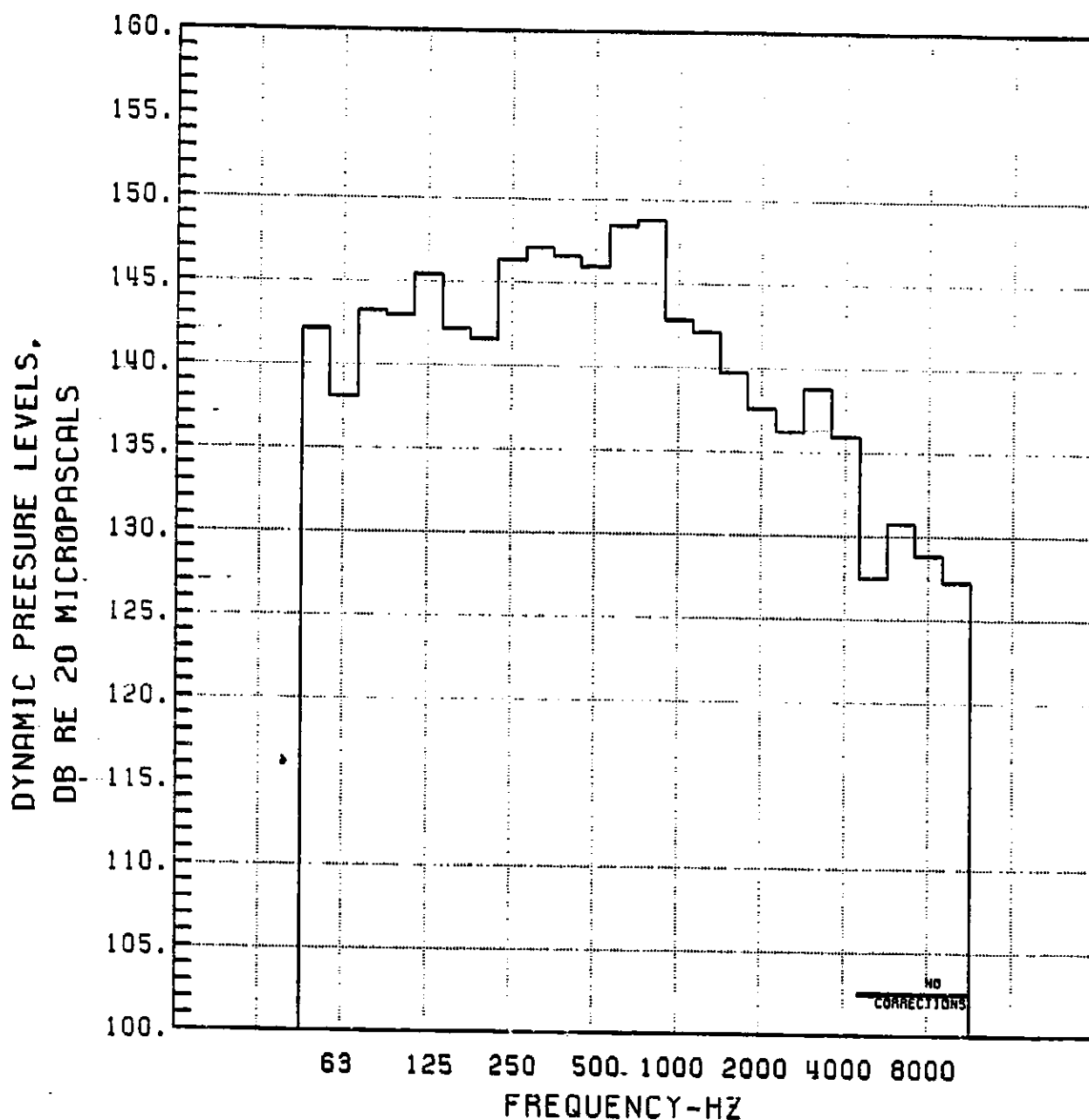
INLET PRESS=442.6 KPA(64.2 PSIA), COMB EXIT TEMP=824.9 DEG C(1516.8 DEG F)

AIR FLOW= 5.85 KG/SEC(12.90#/SEC), FUEL FLOW=348.9 KG/HR(769.2 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 3. GROUP NUMBER: I

RUN NUMBER: 107



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=442.6 KPA(64.2 PSIA), COMB EXIT TEMP=824.9 DEG C(1516.8 DEG F)

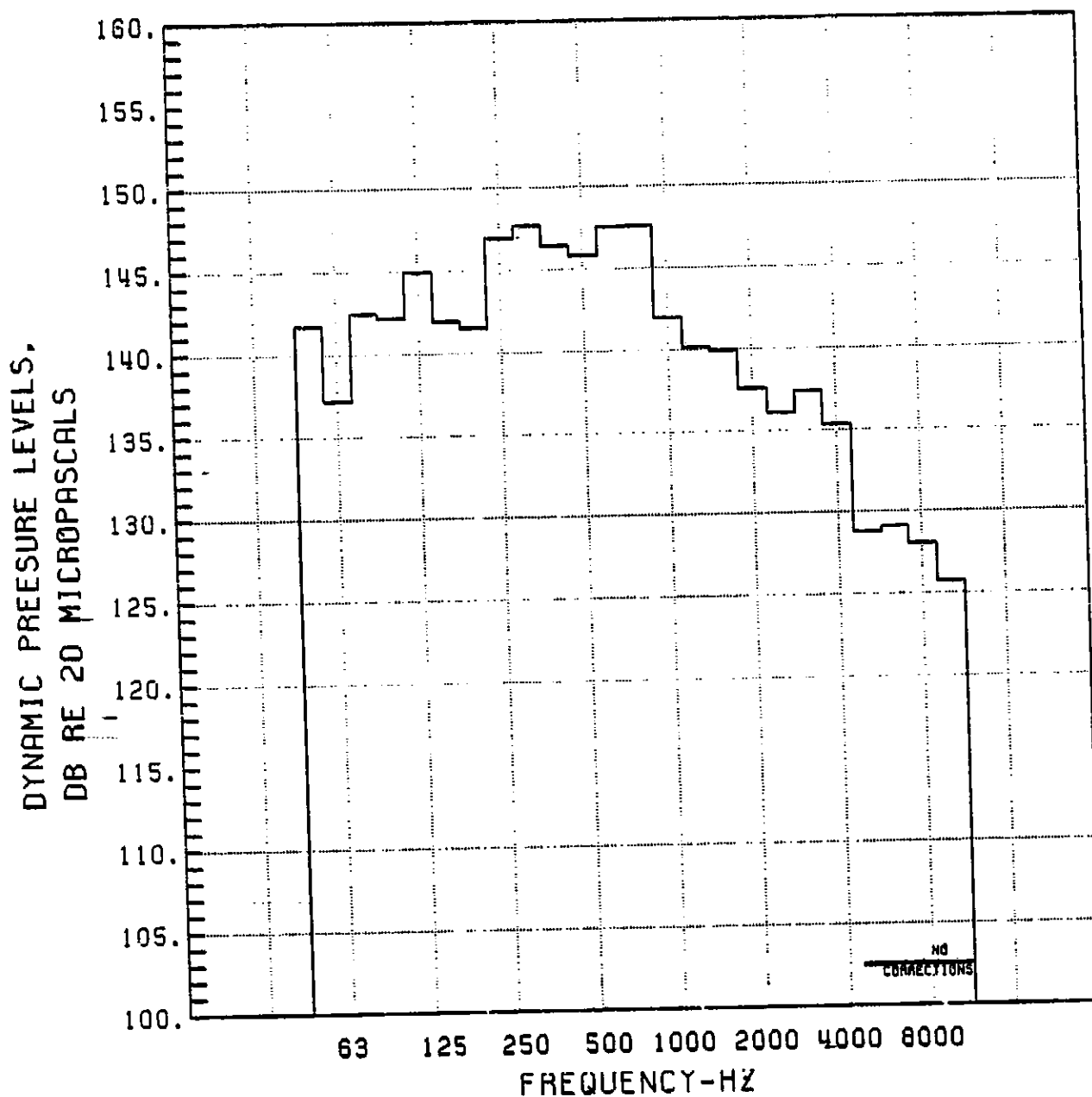
AIR FLOW= 5.85 KG/SEC(12.90#/SEC), FUEL FLOW=348.9 KG/HR(769.2 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 4.

GROUP NUMBER: I

RUN NUMBER: 107



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: TF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

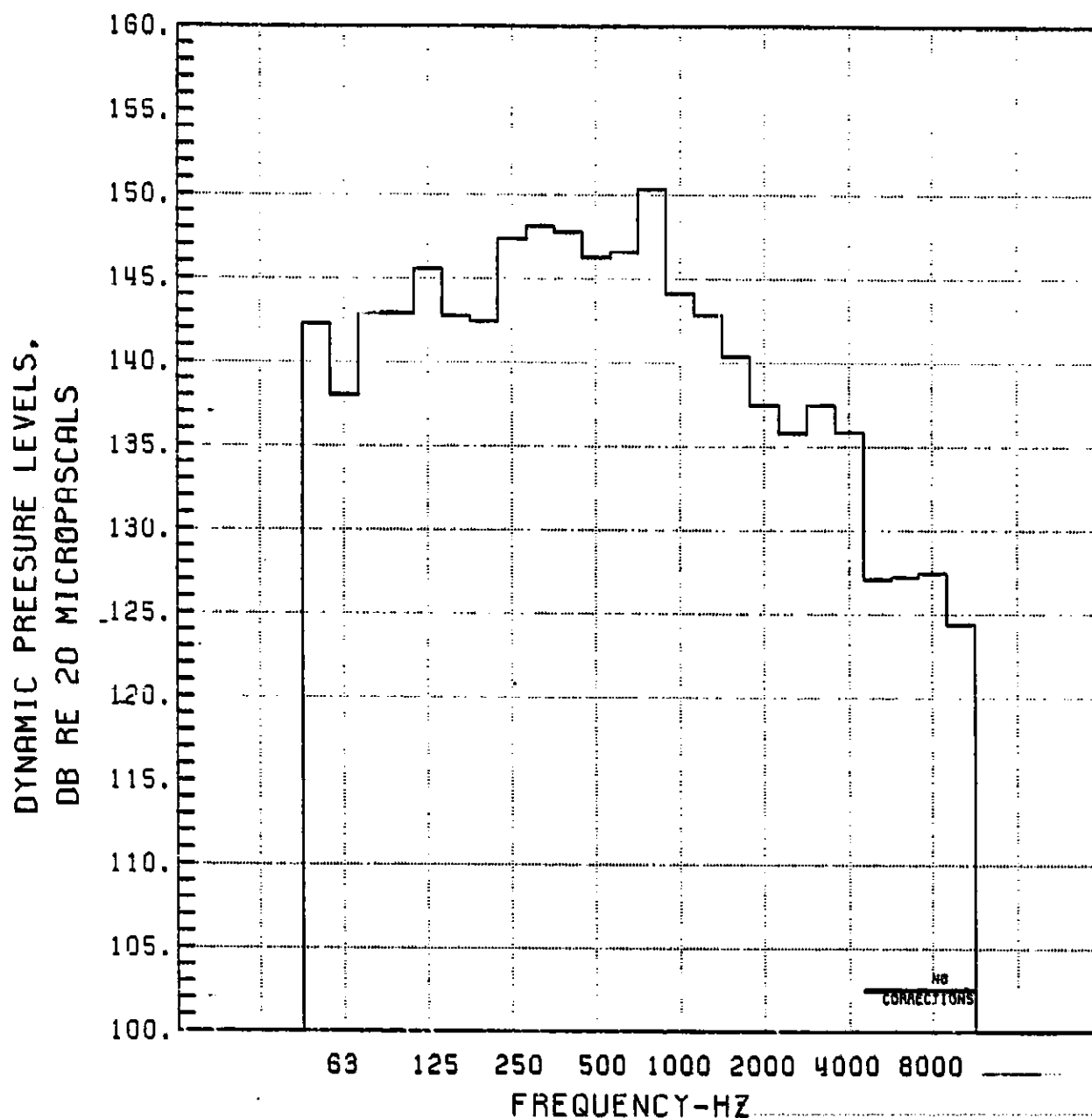
INLET PRESS=442.6 KPA(64.2 PSIA), COMB EXIT TEMP=824.9 DEG C(1516.8 DEG F)

AIR FLOW= 5.85 KG/SEC(12.90#/SEC), FUEL FLOW=348.9 KG/HR(769.2 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 5. GROUP NUMBER: 1

RUN NUMBER: 107



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=442.6 KPA(64.2 PSIA), COMB EXIT TEMP=824.9 DEG C(1516.8 DEG F)

AIR FLOW= 5.85 KG/SEC(12.90#/SEC), FUEL FLOW=348.9 KG/HR(769.2 #/HR)

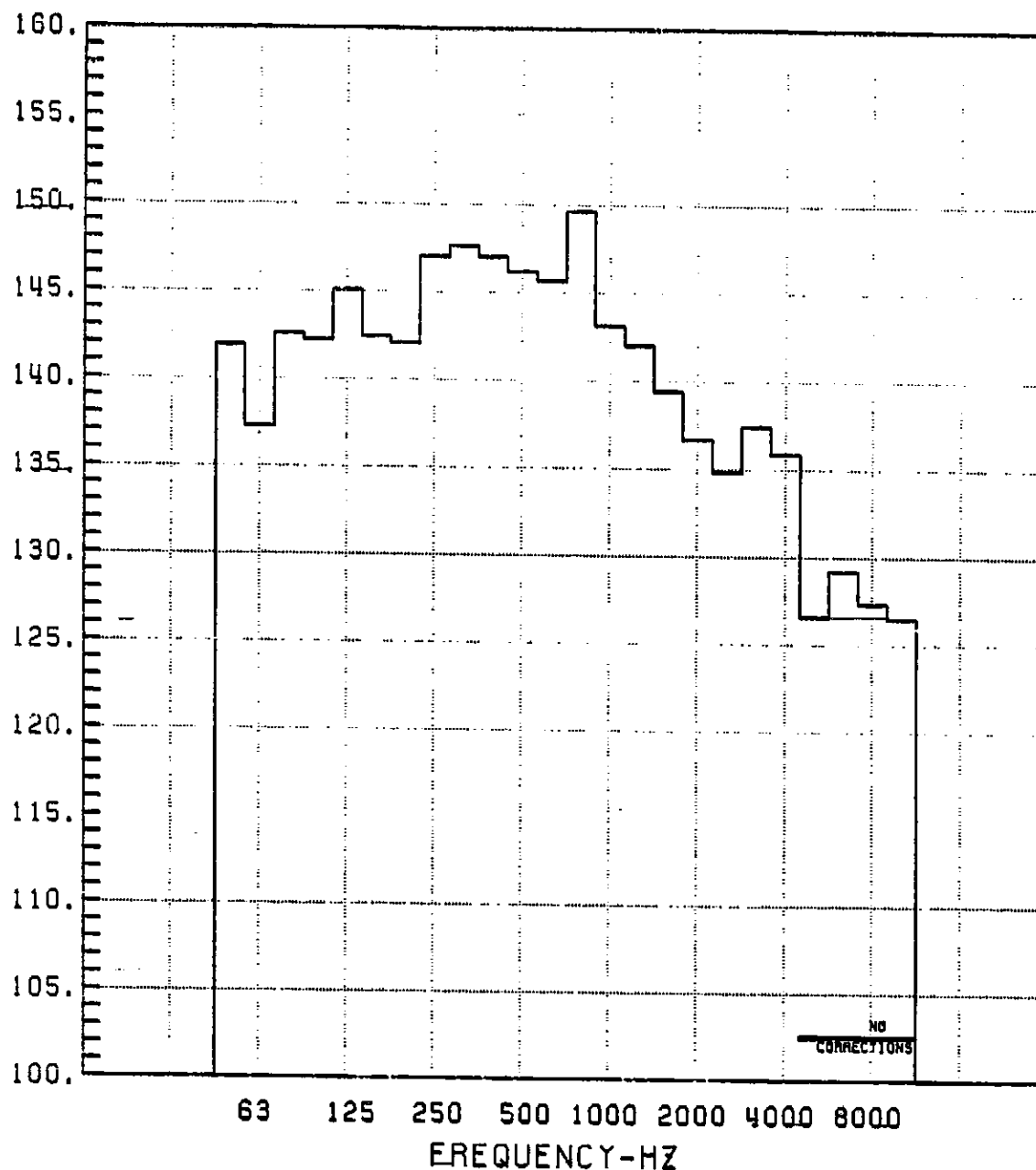
TEST DATE: FEB. 22, 1981

PROBE NUMBER: 6.

GROUP NUMBER: I

RUN NUMBER: 107

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

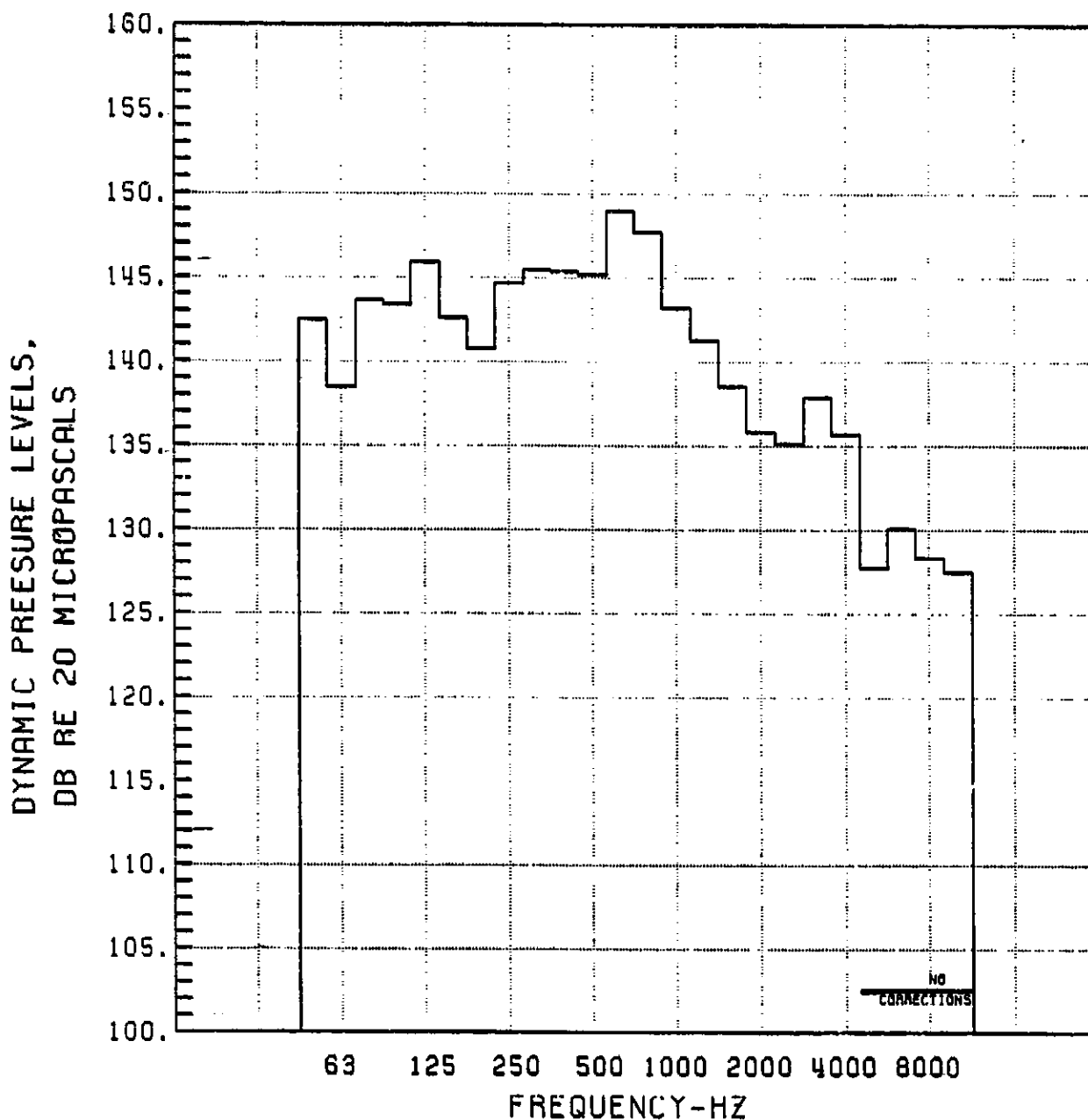
INLE. PRESS=442.6 KPA(64.2 PSIA), COMB EXIT TEMP=824.9 DEG C(1516.8 DEG F)

AIR FLOW= 5.85 KG/SEC(12.90*/SEC), FUEL FLOW=348.9 KG/HR(769.2 */HR)

TEST DATE: FEB. 22, 1981

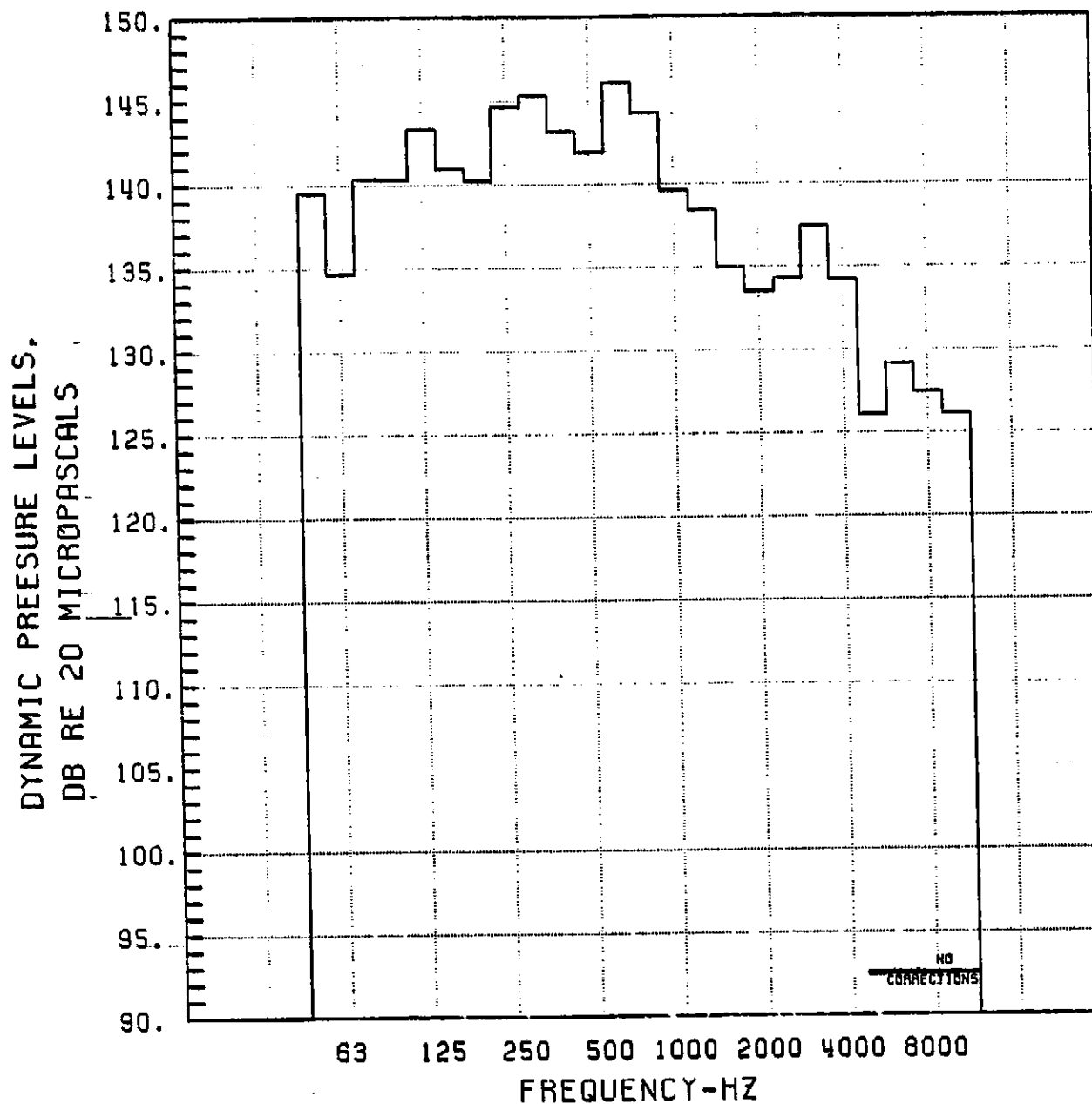
PROBE NUMBER: 7. GROUP NUMBER: 1

RUN NUMBER: 107



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=442.6 KPA(64.1 PSIA), COMB EXIT TEMP=824.9 DEG C(1516.8 DEG F)
AIR FLOW= 5.85 KG/SEC(12.90*/SEC), FUEL FLOW=348.9 KG/HR(769.2 */HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 8. GROUP NUMBER: 1 RUN NUMBER: 107



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497—
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

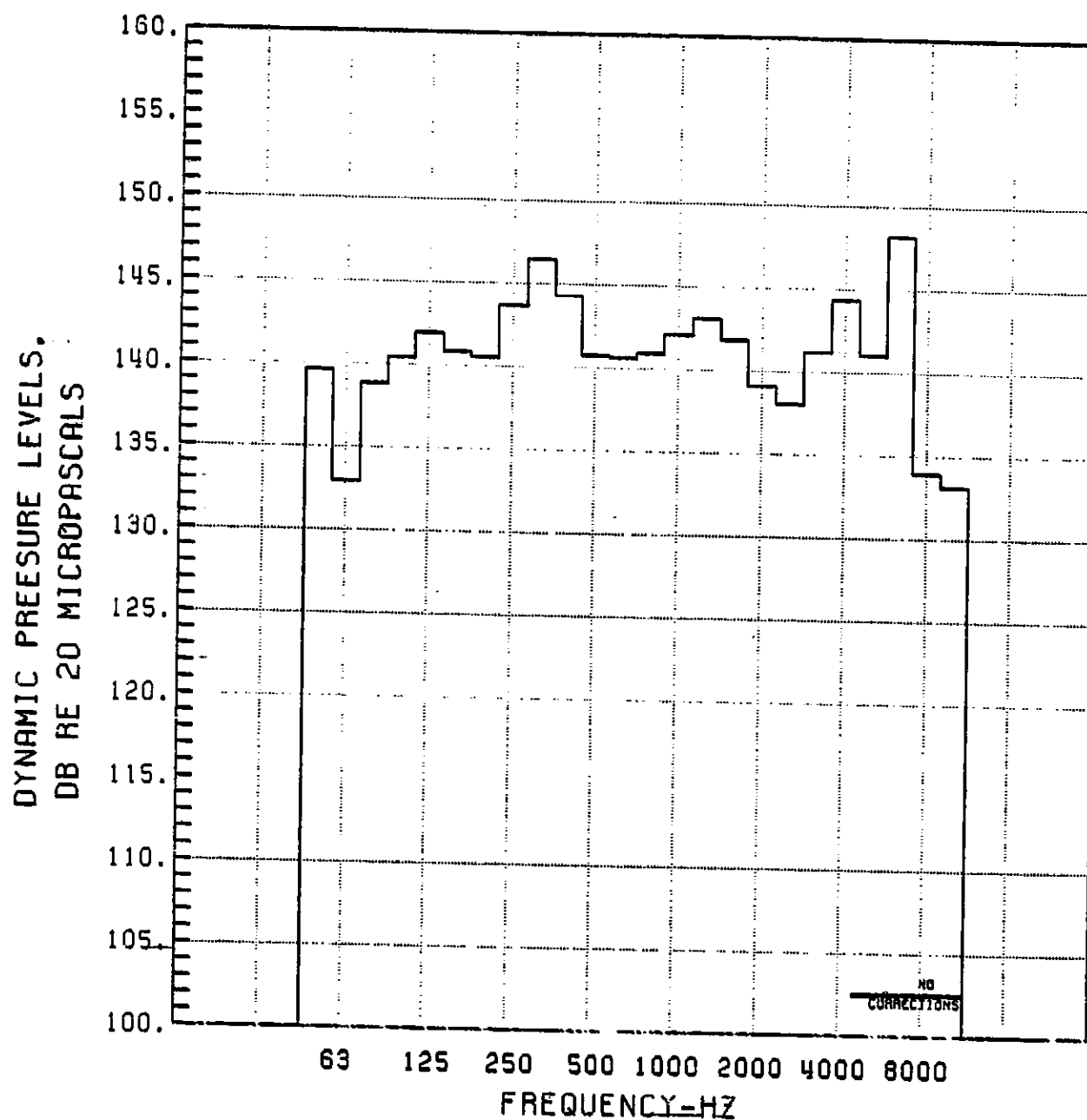
INLET PRESS=442.6 KPA(64.2 PSIA), COMB EXIT TEMP=824.9 DEG C(1516.8 DEG F)

AIR FLOW= 5.85 KG/SEC(12.90*/SEC), FUEL FLOW=348.9 KG/HR(789.2 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 9. GROUP NUMBER: I

RUN NUMBER: 107



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., ST. ATTFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

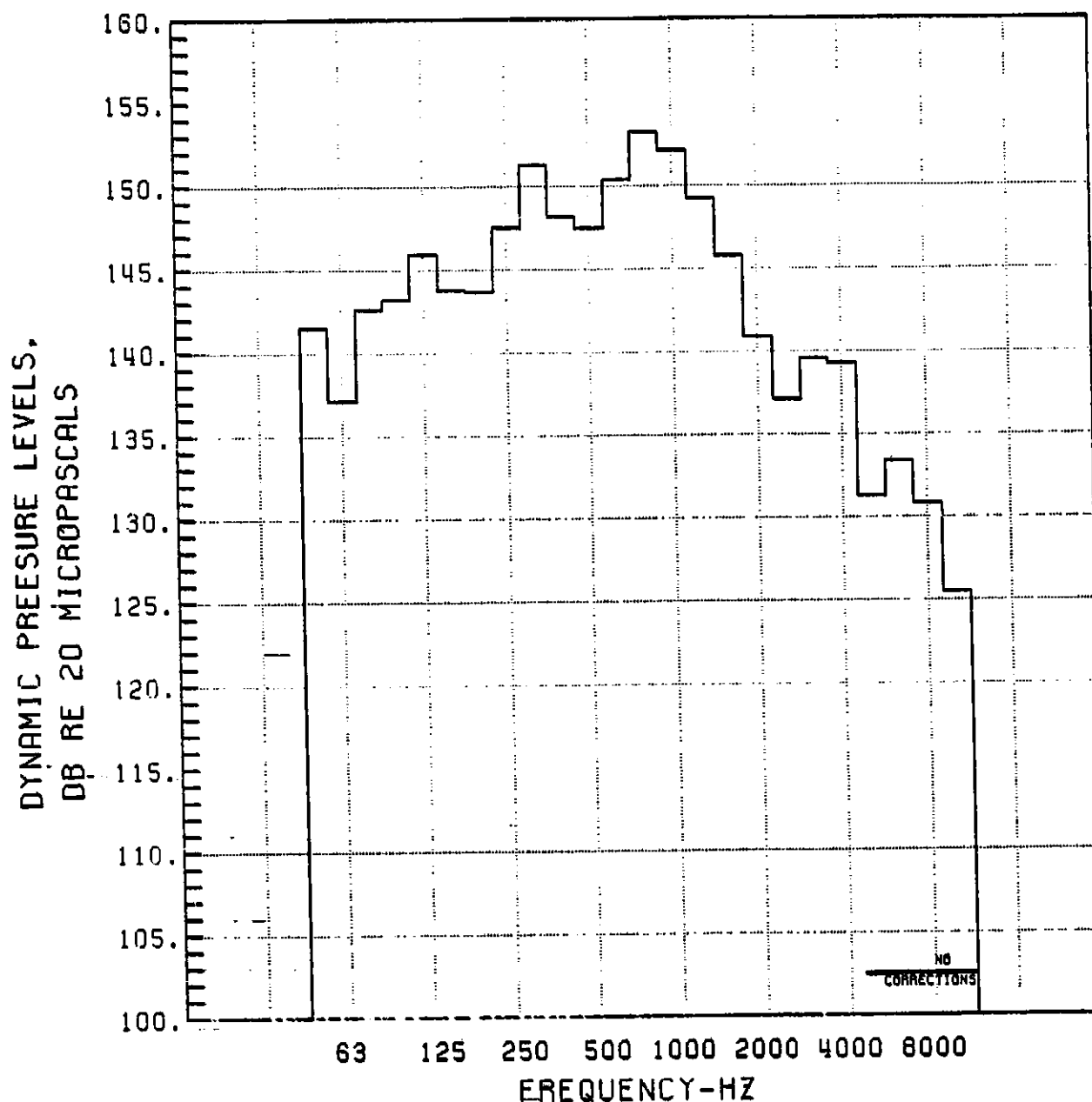
INLET PRESS=554.8 KPA(80.5 PSIA), COMB EXIT TEMP=827.9 DEG C(1522.2 DEG F)

AIR FLOW= 7.42 KG/SEC(16.35*/SEC), FUEL FLOW=427.7 KG/HR(942.9 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 1. GROUP NUMBER: 1

RUN NUMBER: 110



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

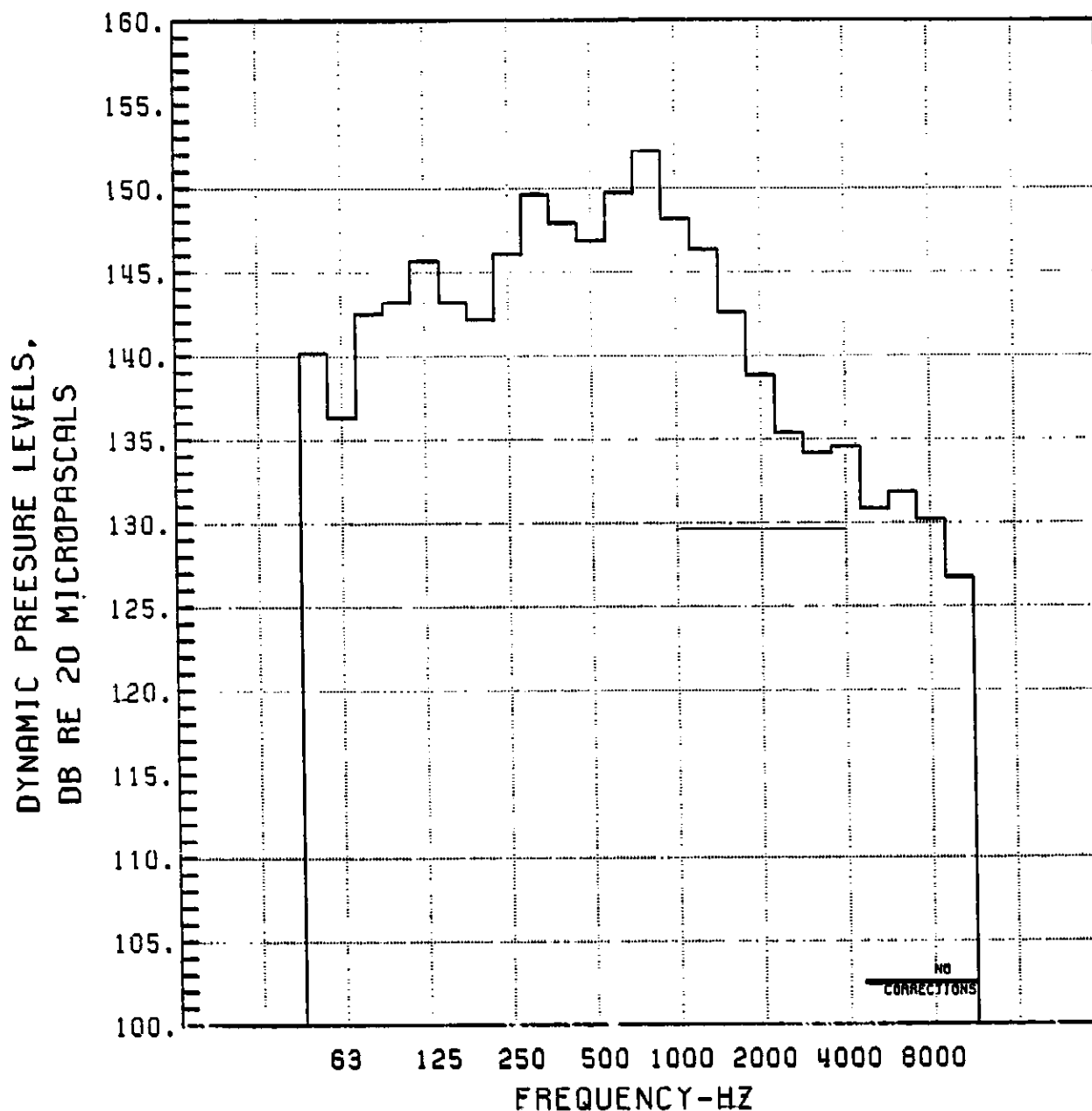
INLET PRESS=554.8 KPA(80.5 PSIA), COMB EXIT TEMP=827.9 DEG C(1522.2 DEG F)

AIR FLOW= 7.42 KG/SEC(16.35#/SEC), FUEL FLOW=427.7 KG/HR(942.9 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 2. GROUP NUMBER: 1

RUN NUMBER: 110



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=554.8 KPA(80.5 PSIA), COMB EXIT TEMP=827.9 DEG C(1522.2 DEG F)

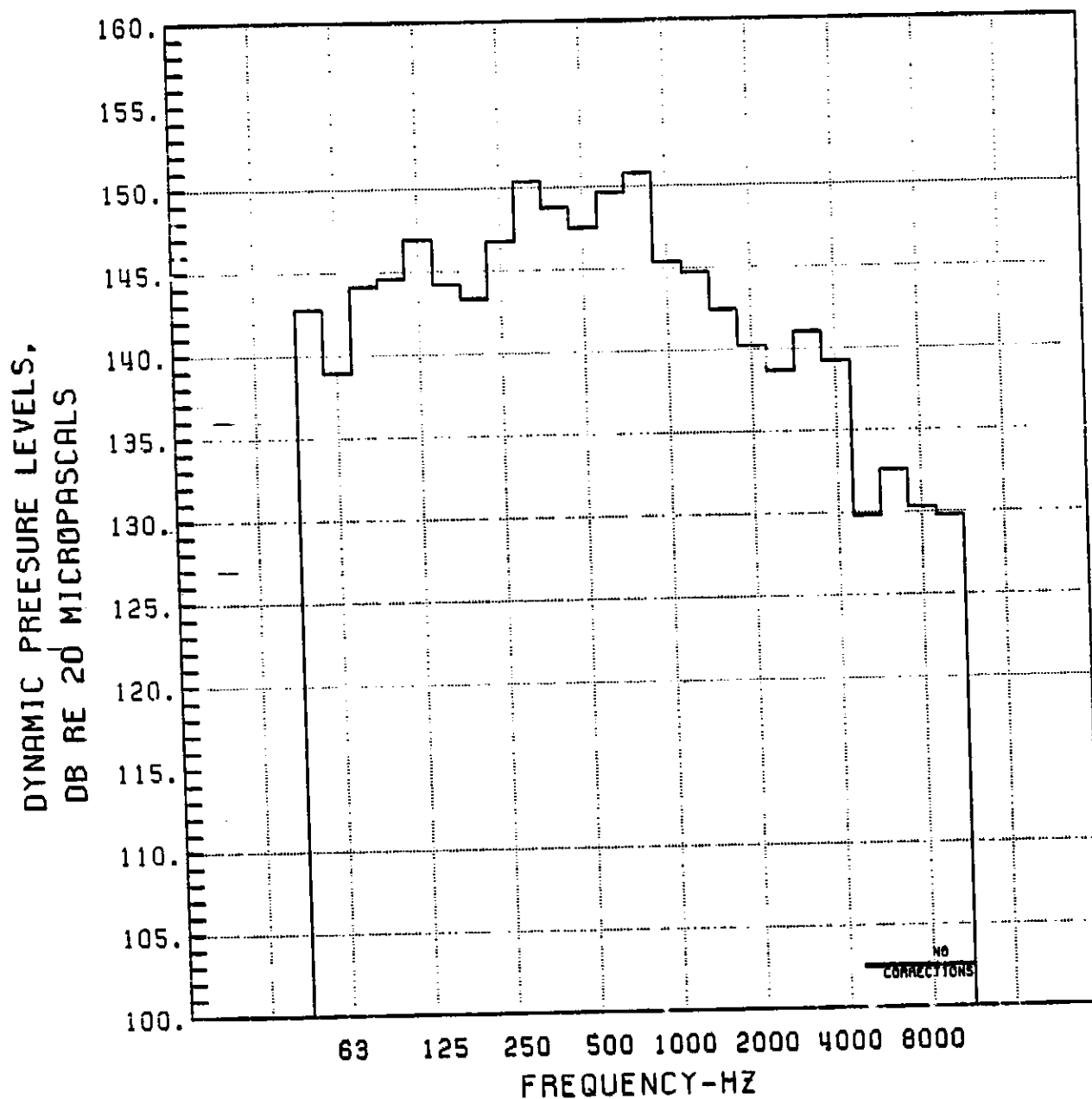
AIR FLOW= 7.42 KG/SEC(16.35*/SEC), FUEL FLOW=427.7 KG/HR(942.9 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 3.

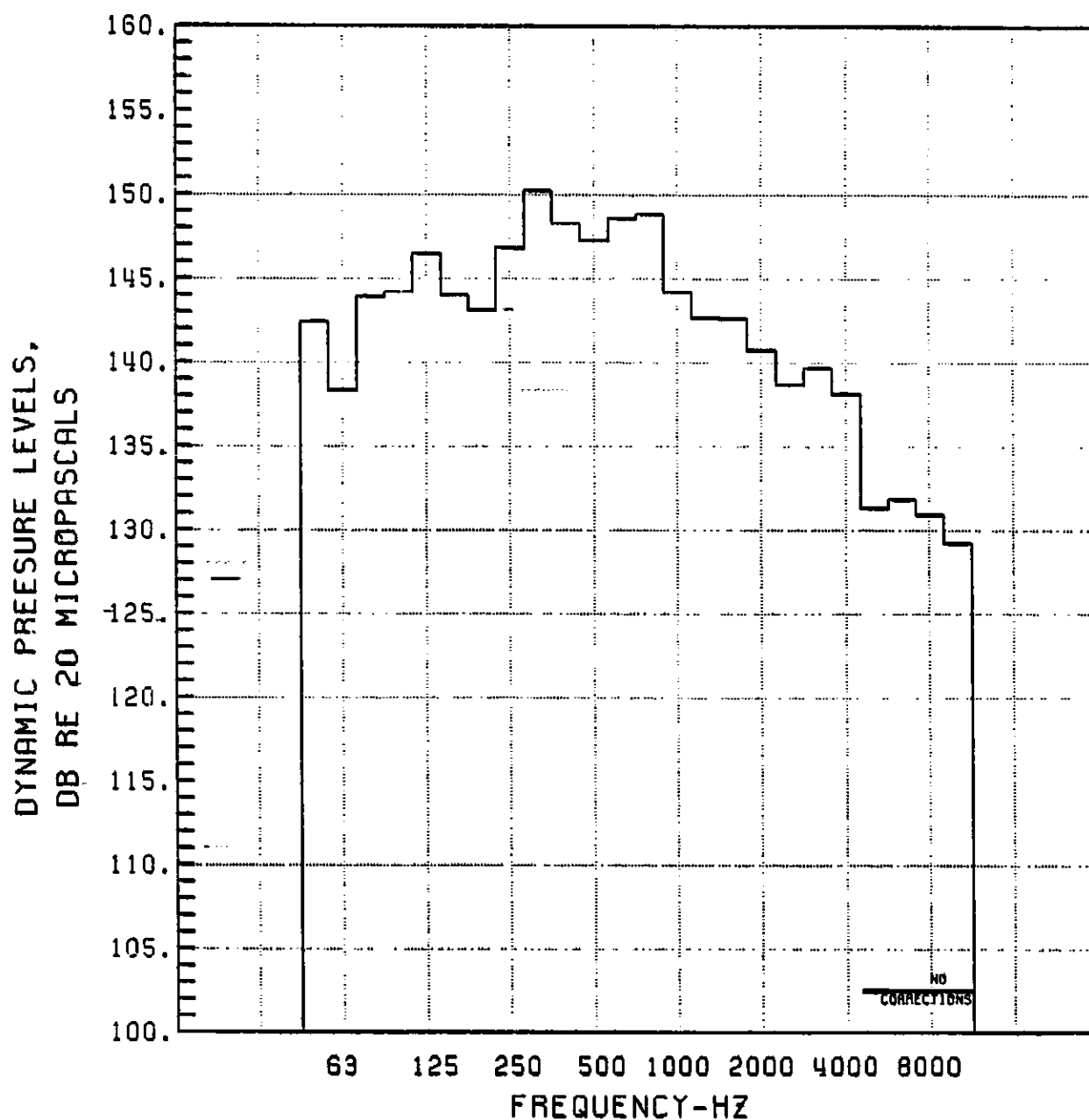
GROUP NUMBER: I

RUN NUMBER: 110



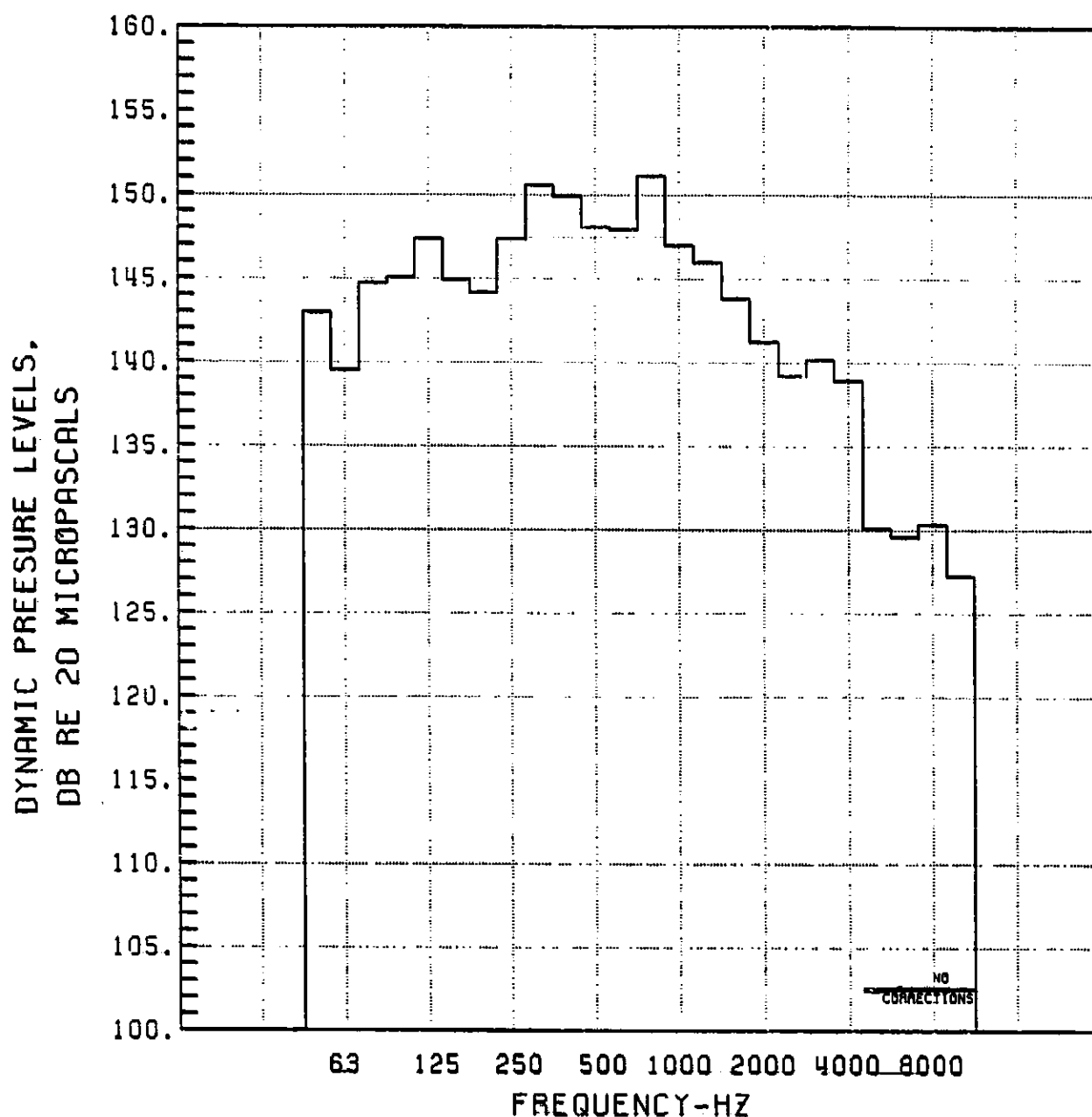
AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: TF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=554.8 KPA(80.5 PSIA), COMB EXIT TEMP=827.9 DEG C(1522.2 DEG F)
AIR FLOW= 7.42 KG/SEC(16.35#/SEC), FUEL FLOW=427.7 KG/HR(942.9 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 4. GROUP NUMBER: 1 RUN NUMBER: 110



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=554.8 KPA(80.5 PSIA), COMB EXIT TEMP=827.9 DEG C(1522.2 DEG F)
AIR FLOW= 7.42 KG/SEC(16.35#/SEC), FUEL FLOW=427.7 KG/HR(942.9 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 5. GROUP NUMBER: I RUN NUMBER: 110



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

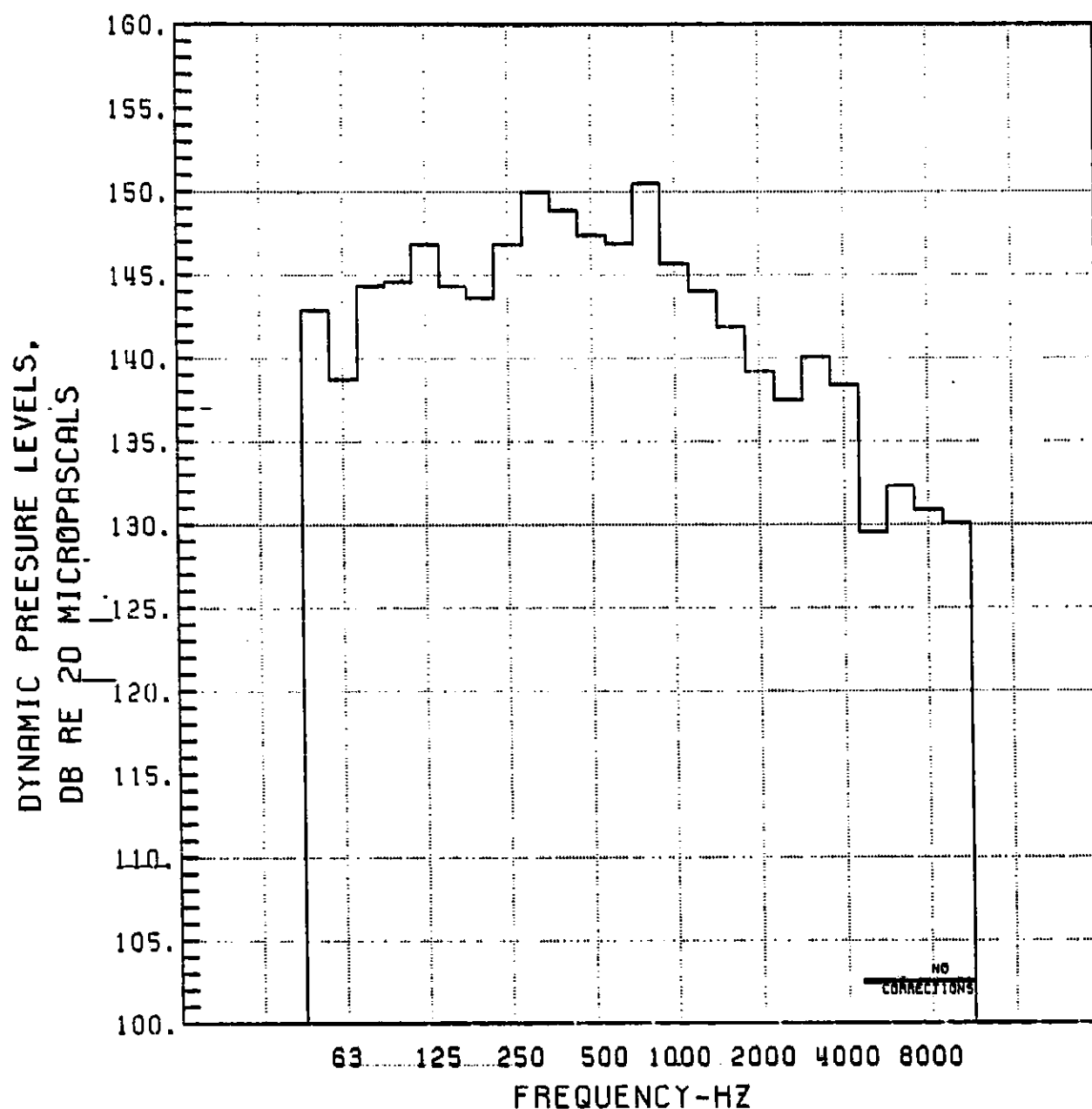
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=554.8 KPA(80.5 PSIA), COMB EXIT TEMP=827.9 DEG C(1522.2 DEG F)

AIR FLOW= 7.42 KG/SEC(16.35#/SEC), FUEL FLOW=427.7 KG/HR(942.9 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 6. GROUP NUMBER: I RUN NUMBER: 110



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

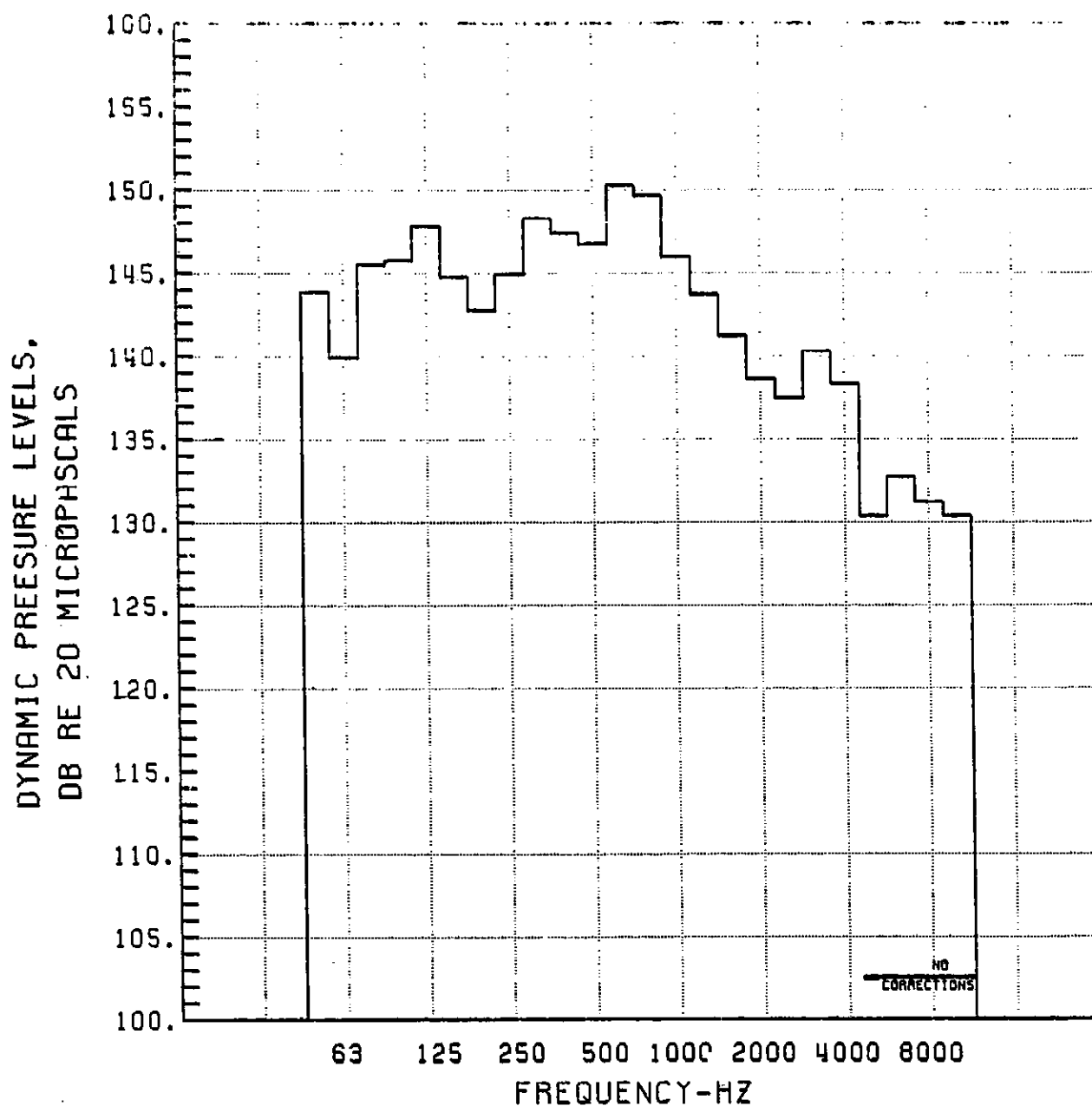
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=554.8 KPA(80.5 PSIA), COMB EXIT TEMP=827.9 DEG C(1522.2 DEG F)

AIR FLOW= 7.42 KG/SEC(16.35#/SEC), FUEL FLOW=427.7 KG/HR(942.9 #/HR)

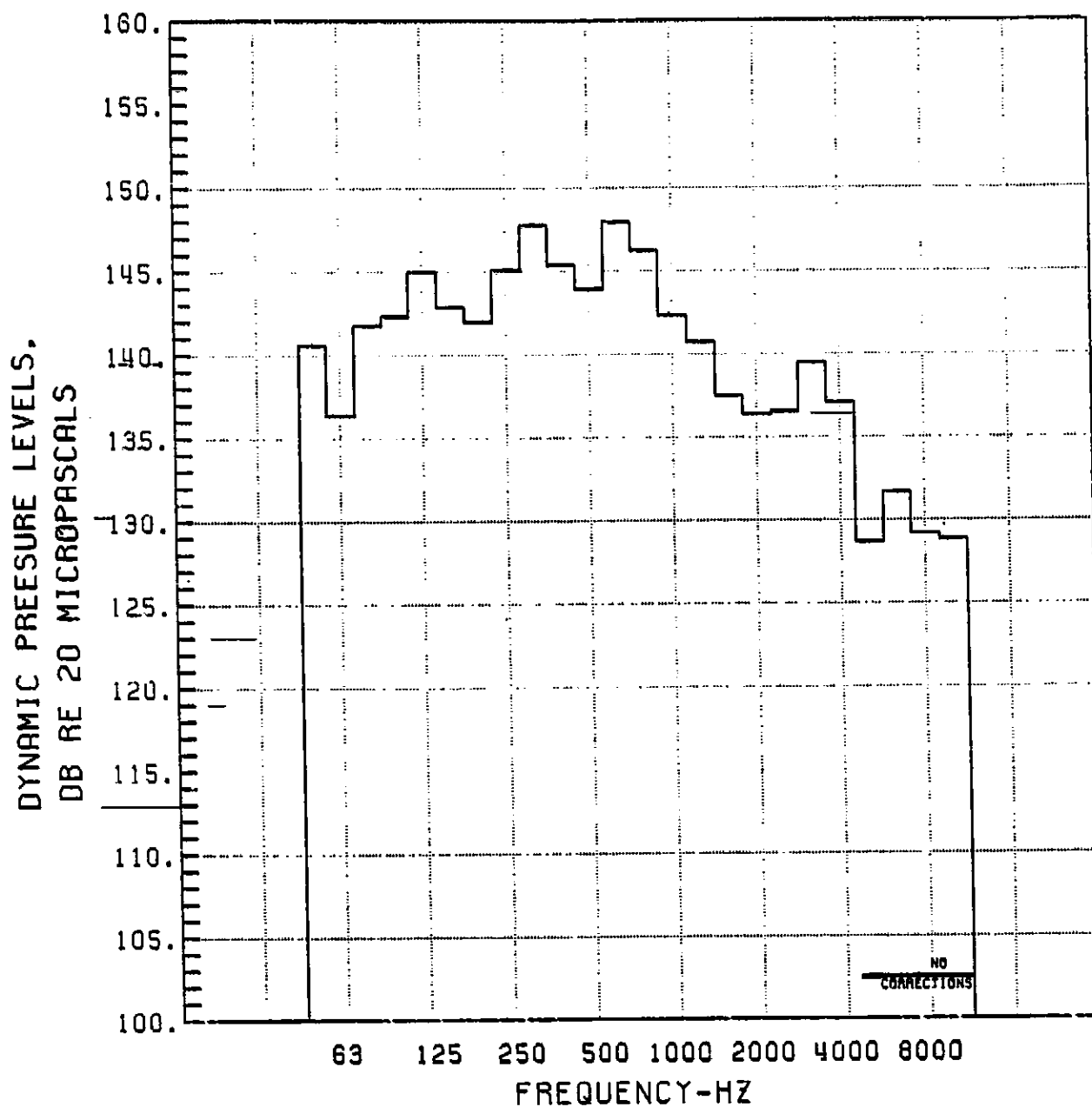
TEST DATE: FEB. 22, 1981

PROBE NUMBER: 7. GROUP NUMBER: I RUN NUMBER: 110



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=554.8 KPA(80.5 PSIA), COMB EXIT TEMP=827.9 DEG C(1522.2 DEG F)
AIR FLOW= 7.42 KG/SEC(16.35#/SEC), FUEL FLOW=427.7 KG/HR(942.9 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 8. GROUP NUMBER: I RUN NUMBER: 110



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=554.8 KPA(80.5 PSIA), COMB EXIT TEMP=827.9 DEG C(1522.2 DEG F)

AIR FLOW= 7.42 KG/SEC(16.35*/SEC), FUEL FLOW=427.7 KG/HR(942.9 */HR)

TEST DATE: FEB. 22, 1981

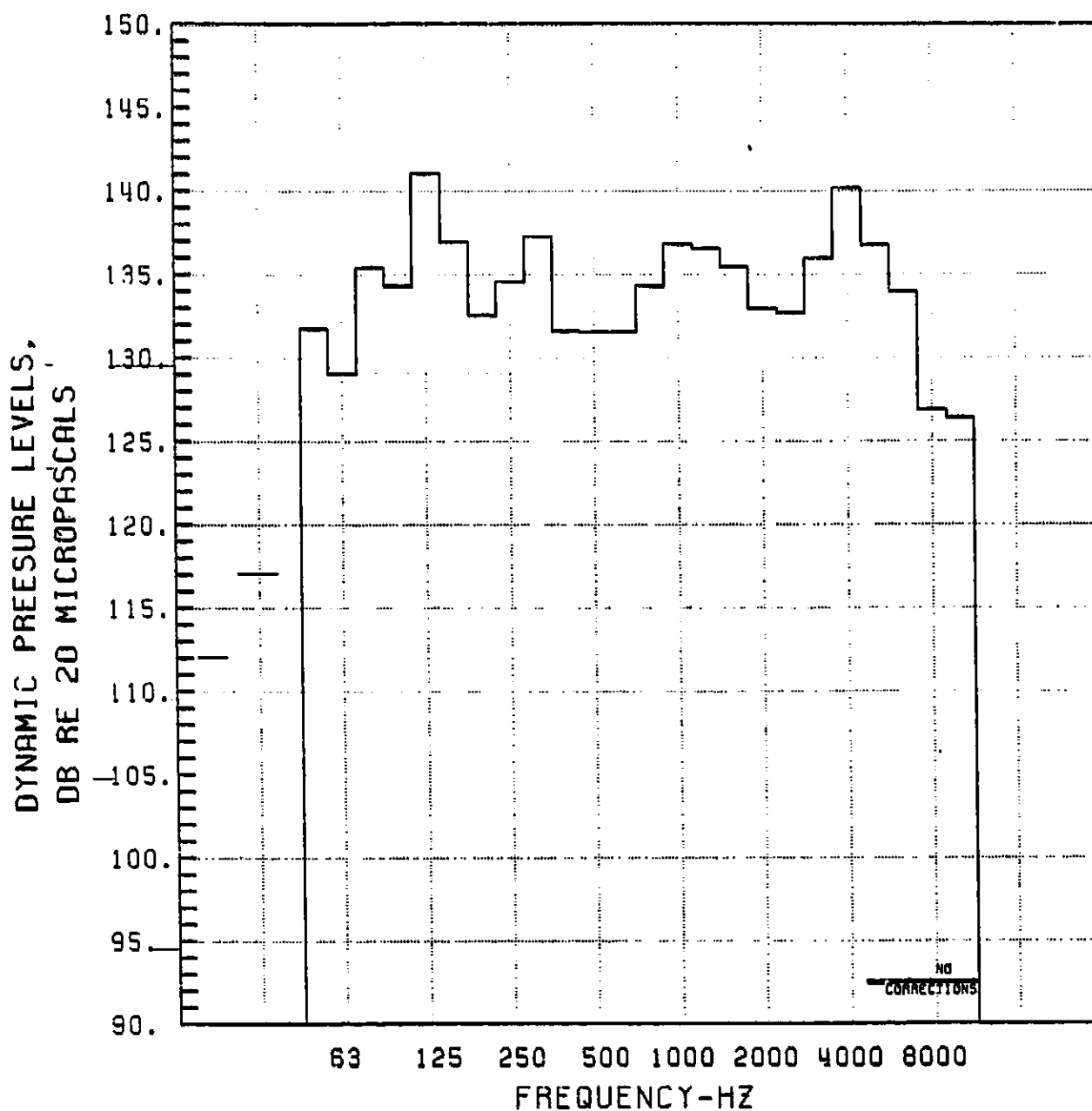
PROBE NUMBER: 9.

GROUP NUMBER: I

RUN NUMBER: 110

APPENDIX B _

GROUP II



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=372.9 KPA(54.1 PSIA), COMB EXIT TEMP=169.9 DEG C(337.8 DEG F)

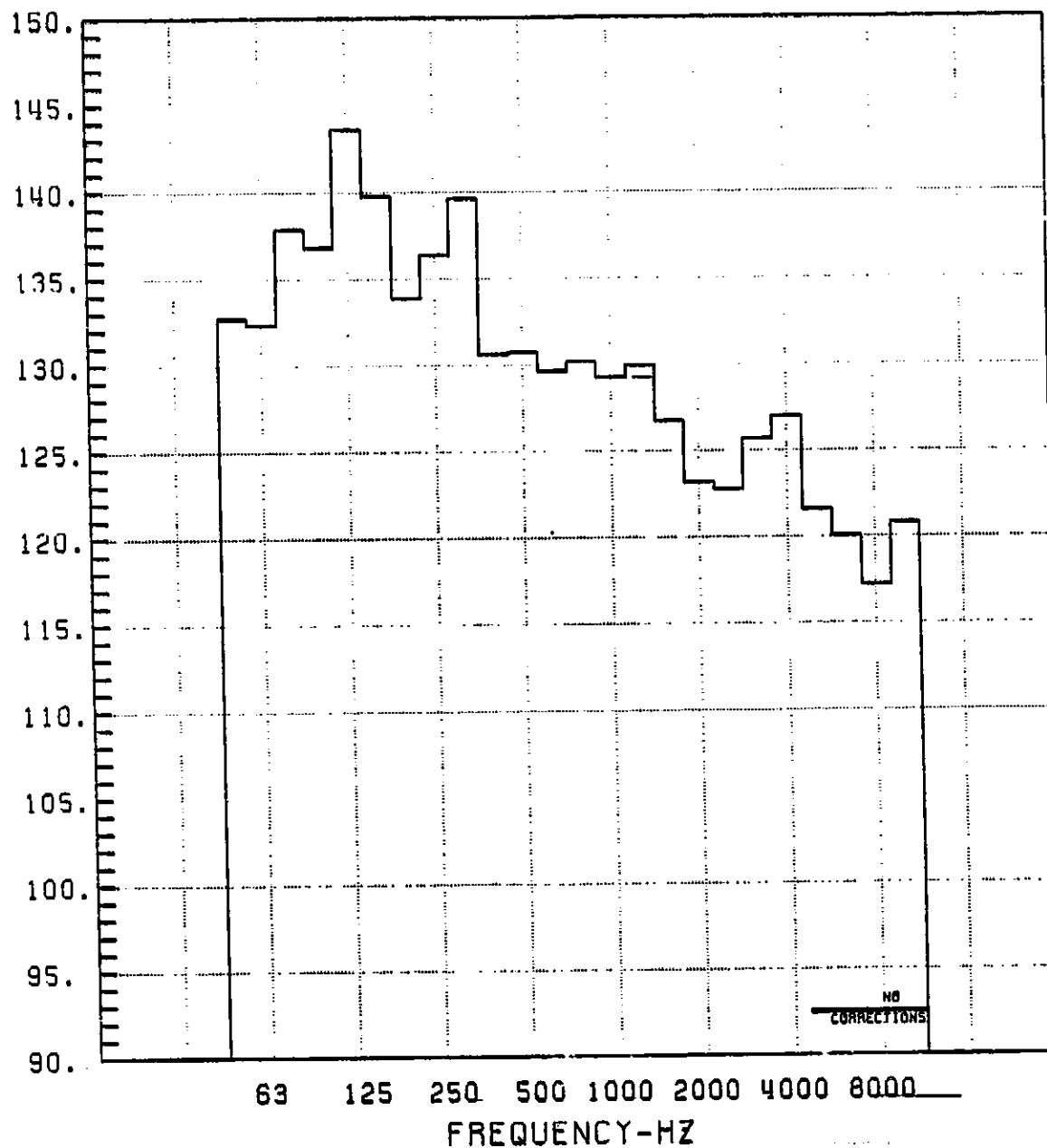
AIR FLOW= 5.03 KG/SEC(11.10#/SEC), FUEL FLOW= 0.0 KG/HR(0.0 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 1. GROUP NUMBER: II

RUN NUMBER: 105

DYNAMIC PRESSURE LEVELS.
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=372.9 KPA(54.1 PSIA), COMB EXIT TEMP=169.9 DEG C(337.8 DEG F)

AIR FLOW= 5.03 KG/SEC(11.10#/SEC), FUEL FLOW= 0.0 KG/HR(0.0 #/HR)

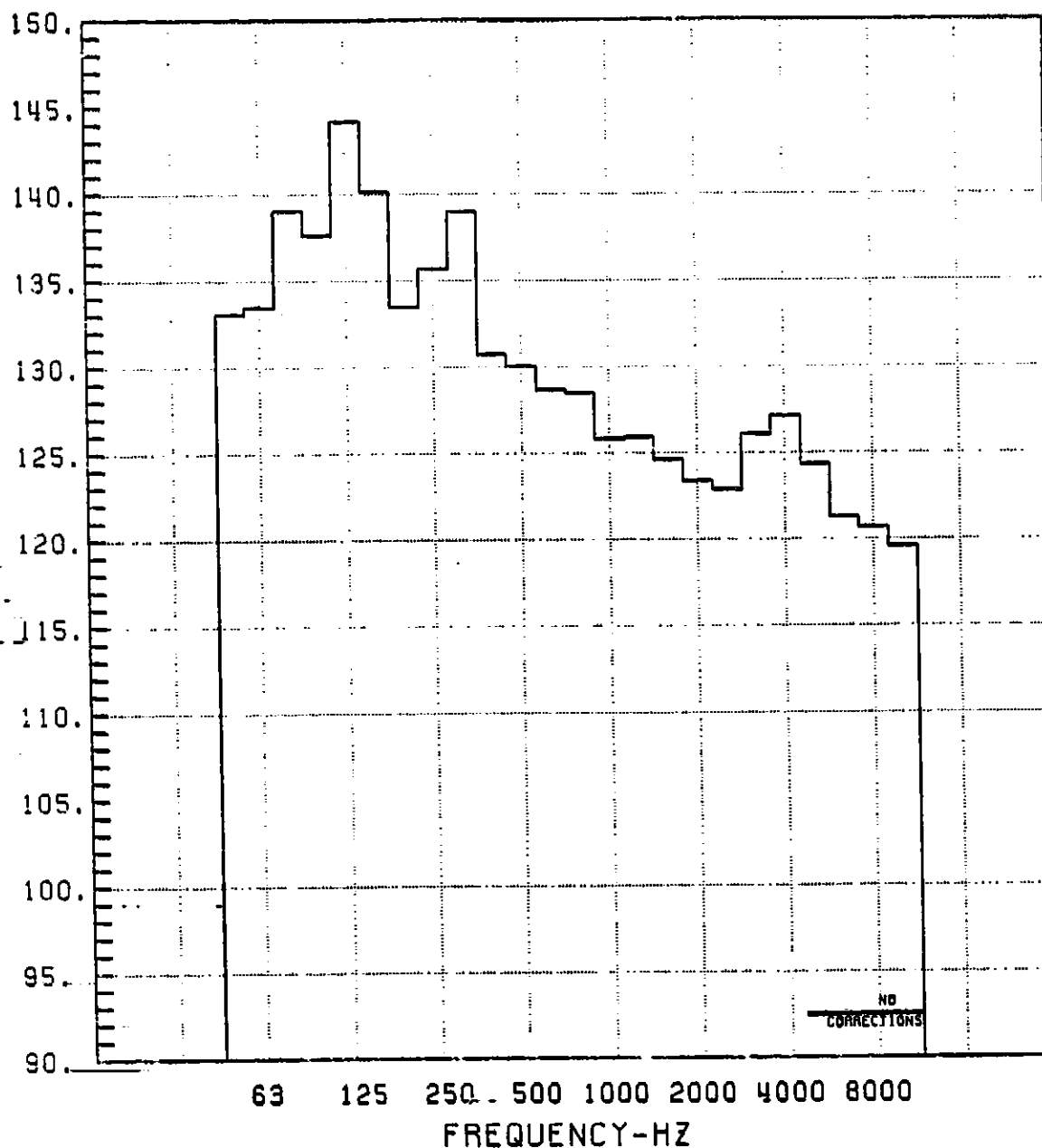
TEST DATE: FEB. 22, 1981

PROBE NUMBER: 2.

GROUP NUMBER: II

RUN NUMBER: 105

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=372.9 KPA(54.1 PSIA), COMB EXIT TEMP=169.9 DEG C(337.8 DEG F)

AIR FLOW= 5.03 KG/SEC(11.10*/SEC), FUEL FLOW= 0.0 KG/HR(0.0 */HR)

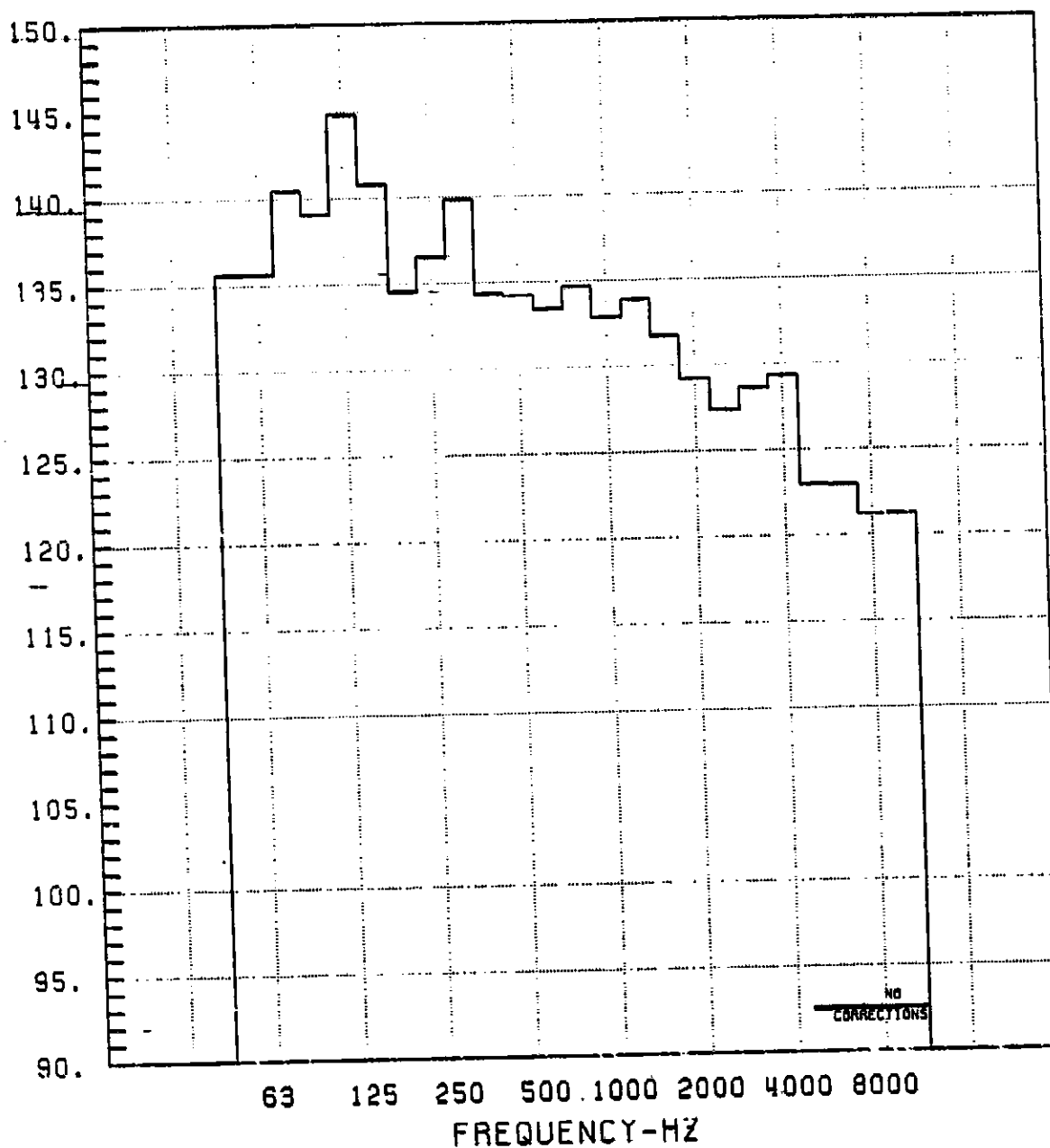
TEST DATE: FEB. 22, 1981

PHORE NUMBER: 3.

GROUP NUMBER: II

RUN NUMBER: 105

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

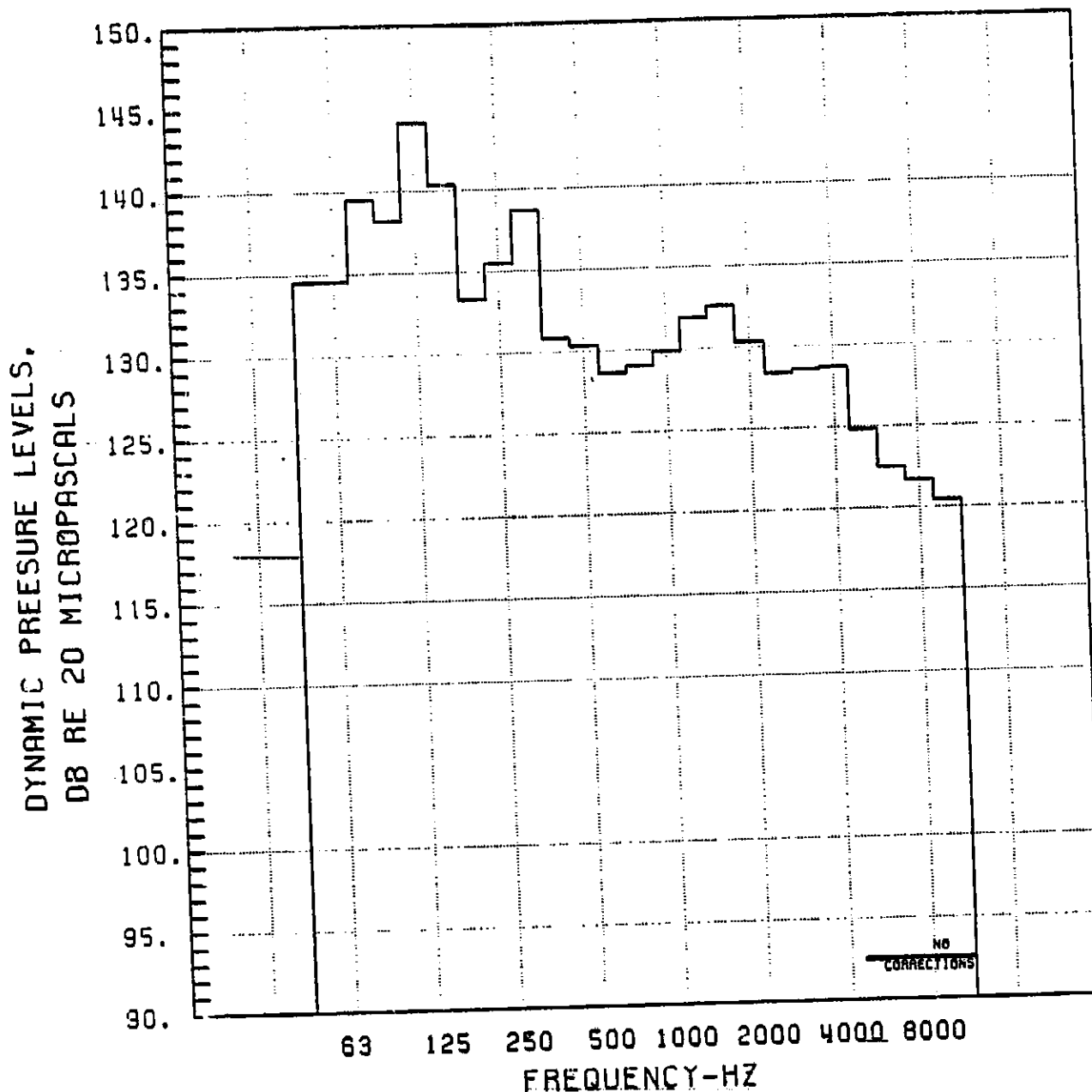
INLET PRESS=372.9 KPA(54.1 PSIA), COMB EXIT TEMP=169.9 DEG C(337.8 DEG F)

AIR FLOW= 5.03 KG/SEC(11.10#/SEC), FUEL FLOW= 0.0 KG/HR(0.0 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 4. GROUP NUMBER: 11

RUN NUMBER: 105



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

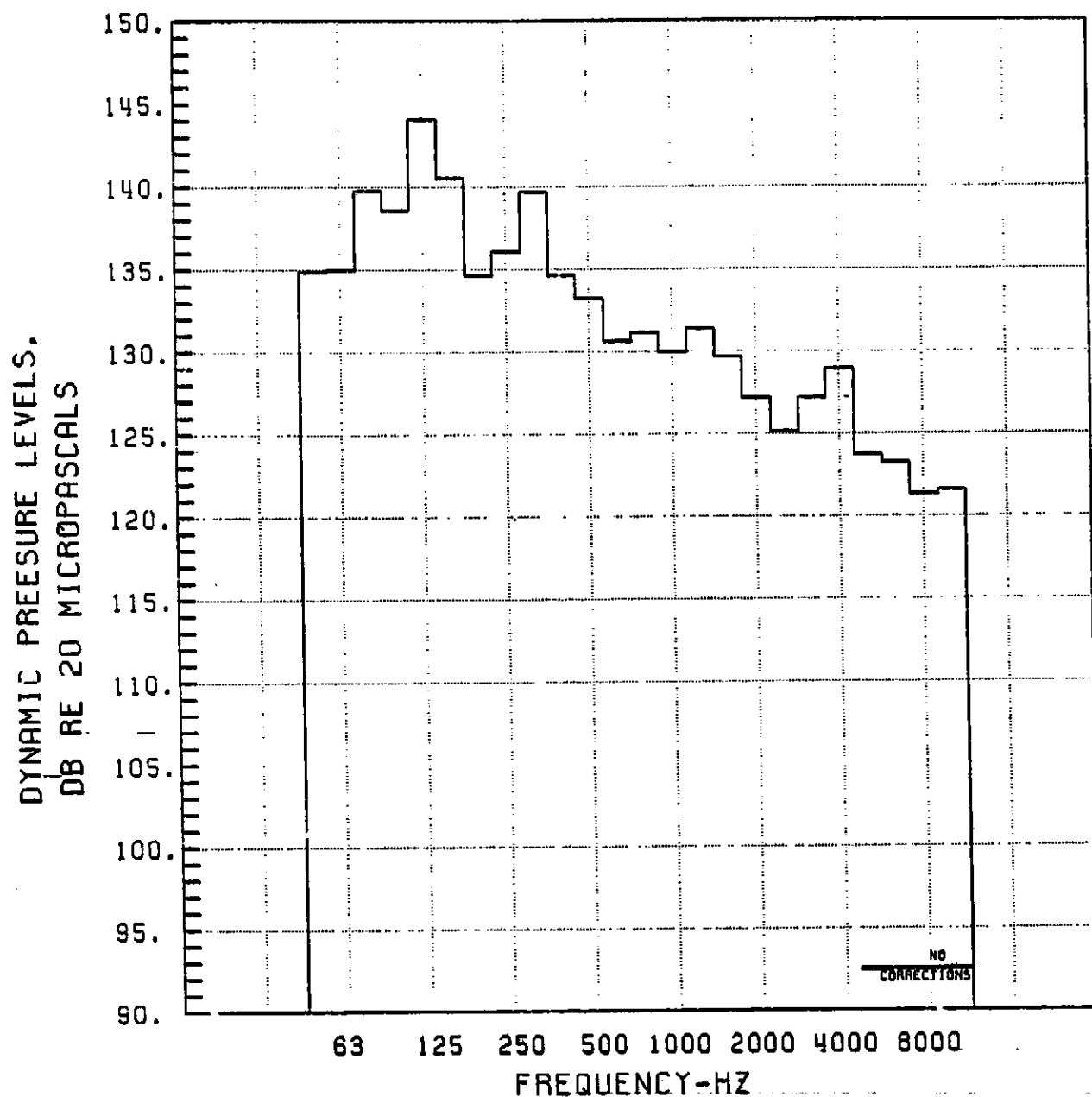
INLET PRESS=372.9 KPA(54.1 PSIA), COMB EXIT TEMP=169.9 DEG C(337.8 DEG F)

AIR FLOW= 5.03 KG/SEC(11.10*/SEC), FUEL FLOW= 0.0 KG/HR(0.0 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 5. GROUP NUMBER: II

RUN NUMBER: 105



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=372.9 KPA(54.1 PSIA), COMB EXIT TEMP=169.9 DEG C(337.8 DEG F)

AIR FLOW= 5.03 KG/SEC(11.10*/SEC), FUEL FLOW= 0.0 KG/HR(0.0 */HR)

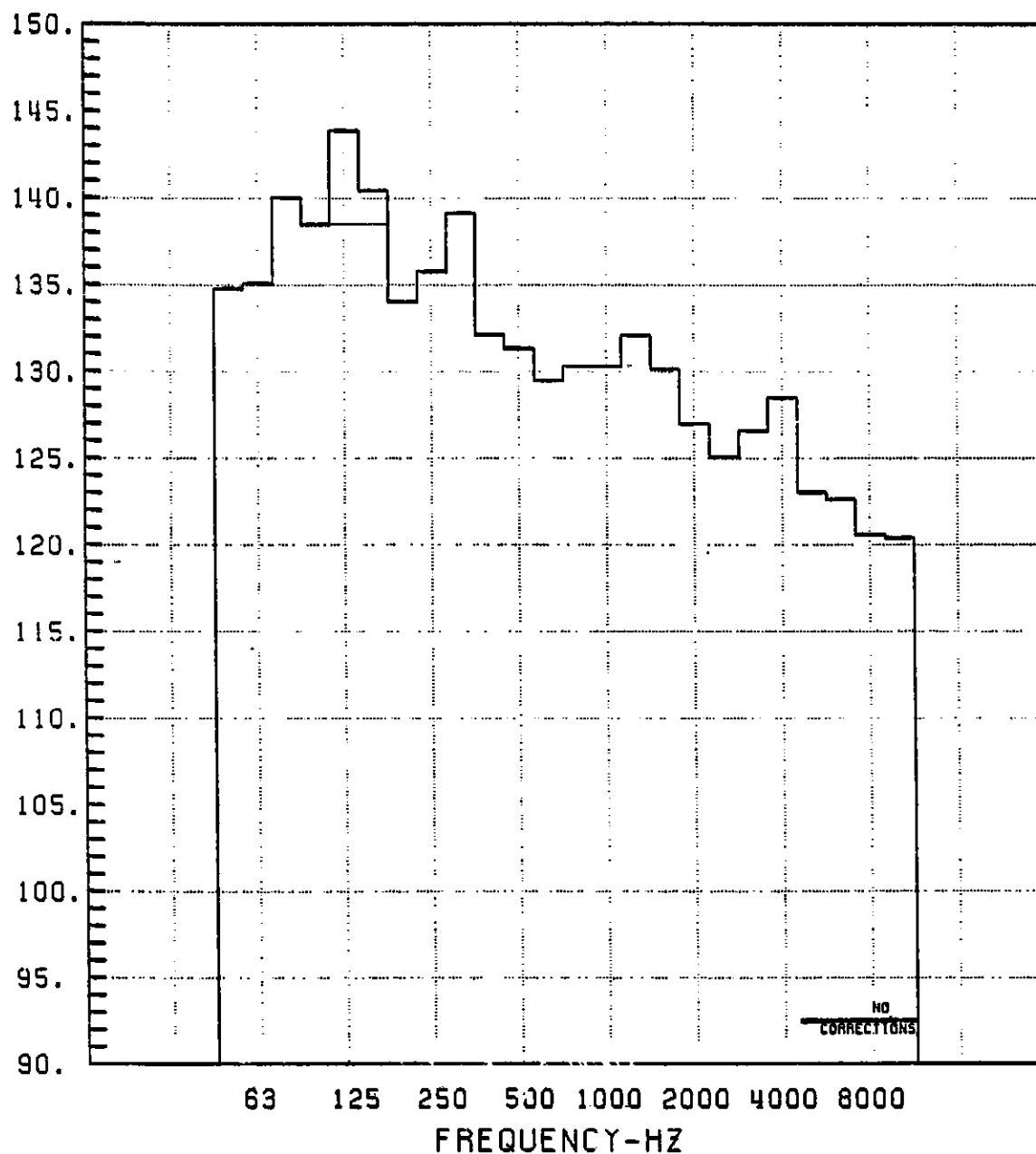
TEST DATE: FEB. 22, 1981

PROBE NUMBER: 6.

GROUP NUMBER: II

RUN NUMBER: 105

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=372.9 KPA(54.1 PSIA), COMB EXIT TEMP=169.9 DEG C (337.8 DEG F)

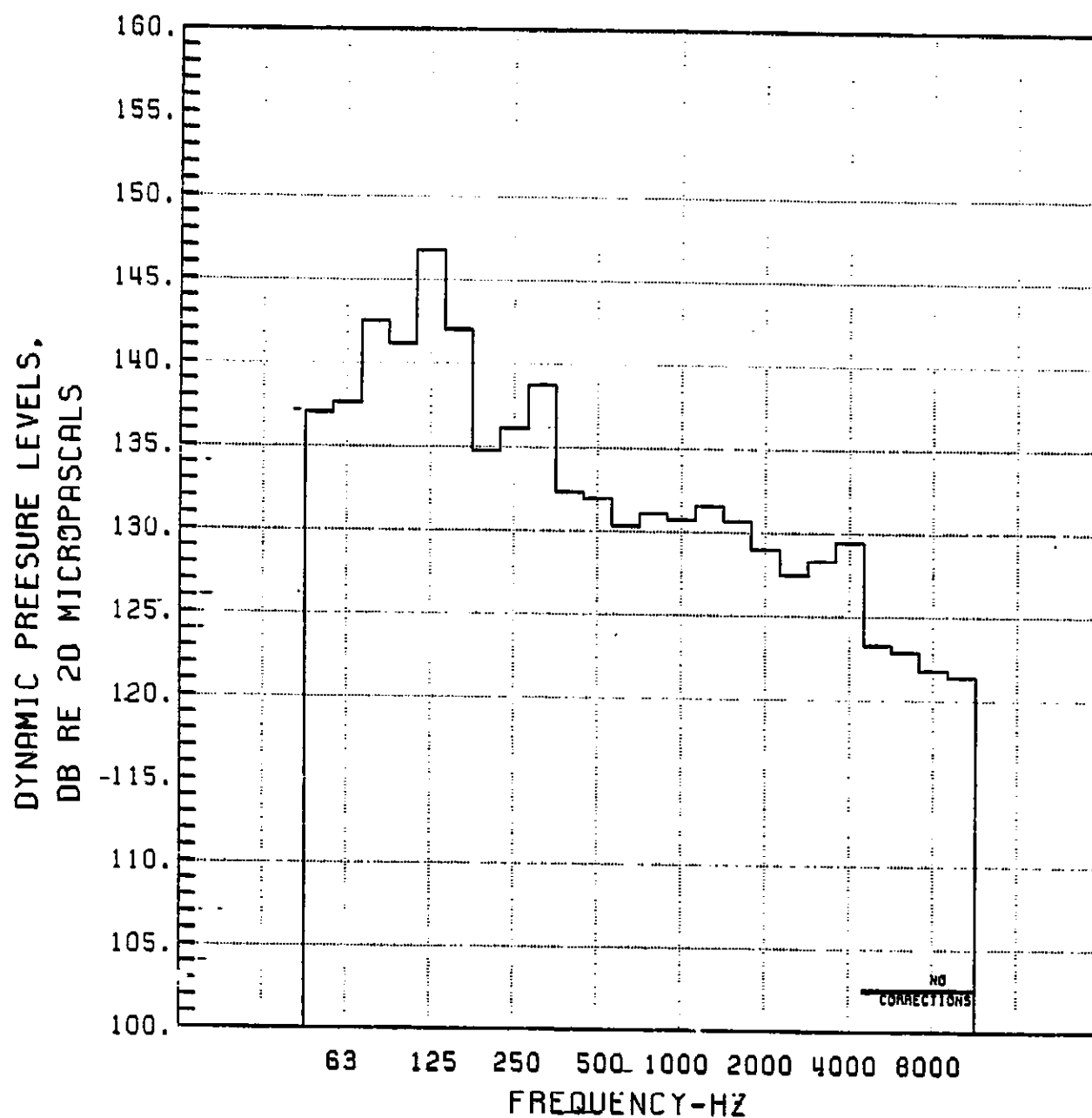
AIR FLOW= 5.03 KG/SEC(11.10*/SEC), FUEL FLOW= 0.0 KG/HR(0.0 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 7.

GROUP NUMBER: II

RUN NUMBER: 105



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

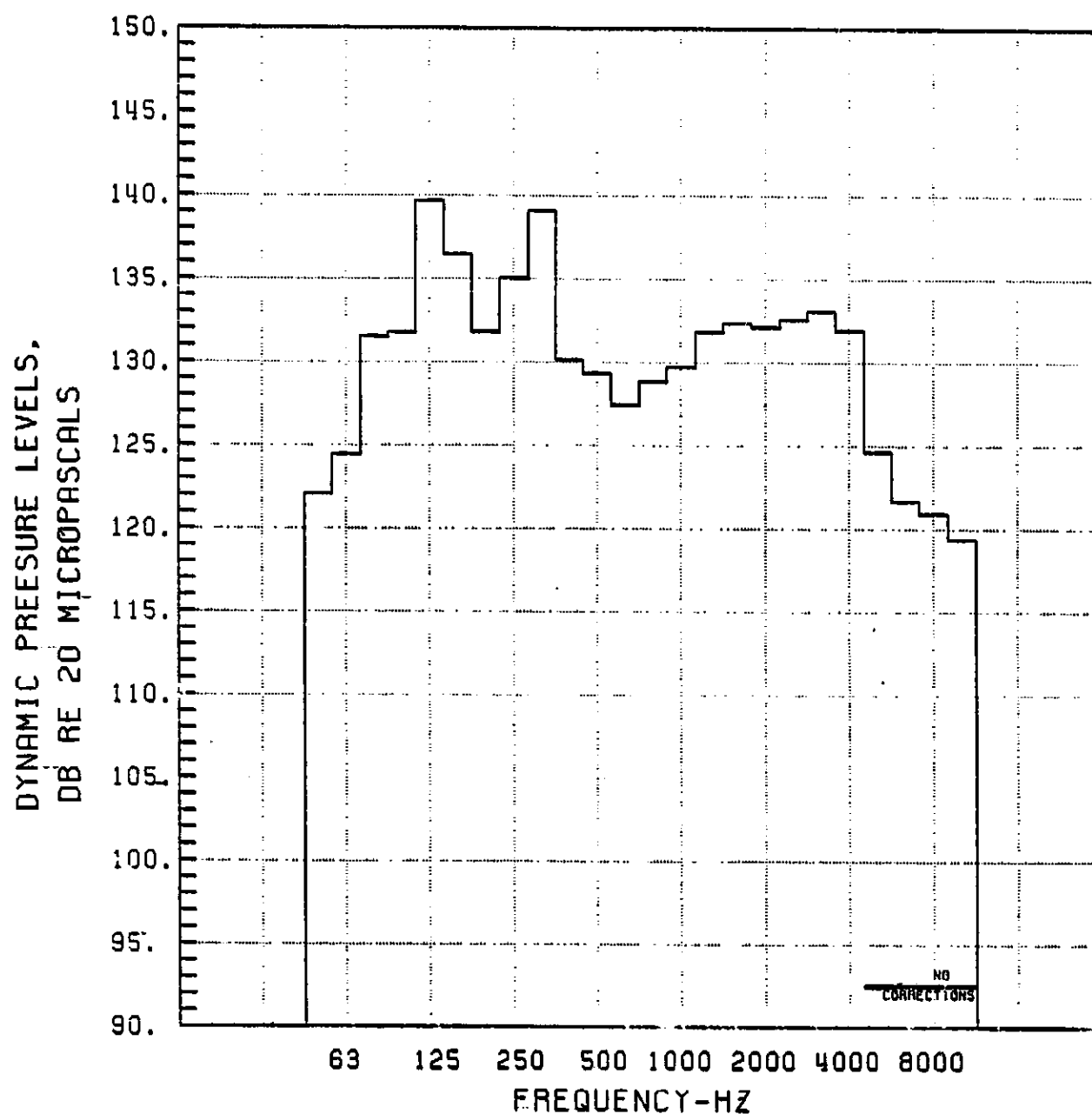
INLET PRESS=372.9 KPA(54.1 PSIA), COMB EXIT TEMP=169.9 DEG C(337.8 DEG F)

AIR FLOW= 5.03 KG/SEC(11.10*/SEC), FUEL FLOW= 0.0 KG/HR(0.0 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 8. GROUP NUMBER: 11

RUN NUMBER: 105



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=372.9 KPA(54.1 PSIA), COMB EXIT TEMP=169.9 DEG C(337.8 DEG F)

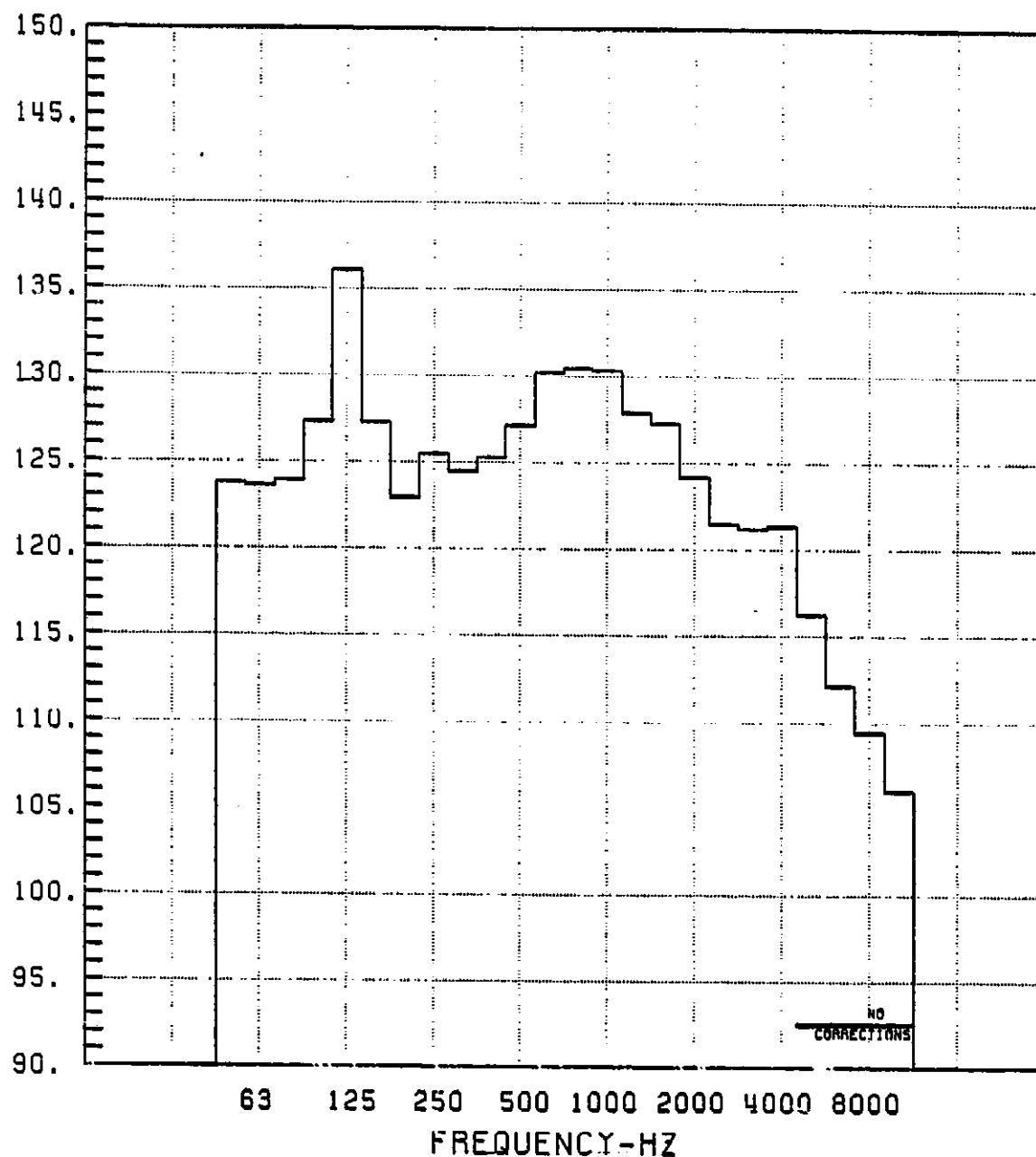
AIR FLOW= 5.03 KG/SEC(11.10*/SEC), FUEL FLOW= 0.0 KG/HR(0.0 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 9. GROUP NUMBER: II

RUN NUMBER: 105

DYNAMIC PRESSURE LEVELS.
DB RE 20 MICROPASCALS



NO
CORRECTIONS

AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

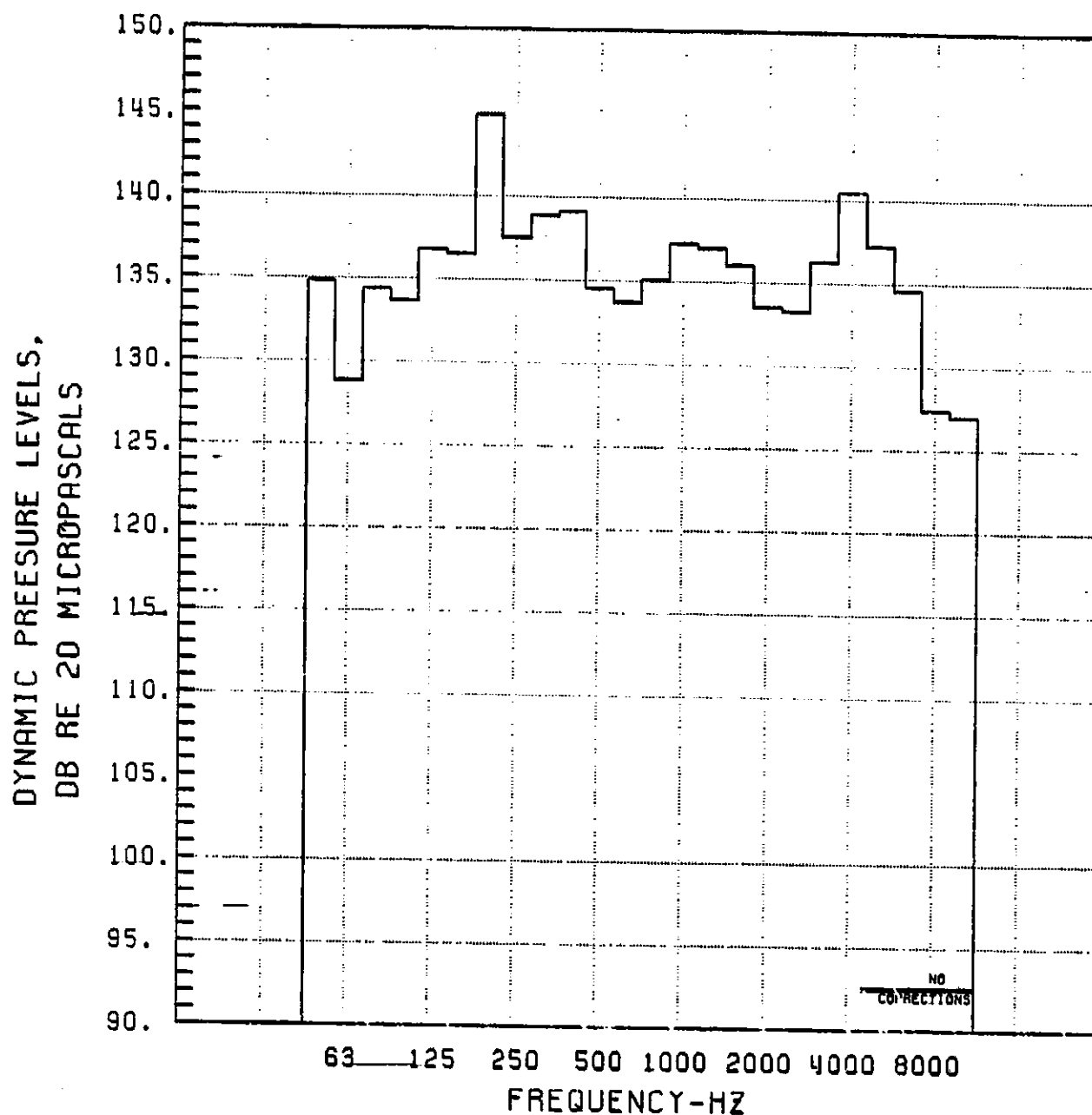
INLET PRESS=372.9 KPA(54.1 PSIA), COMB EXIT TEMP=169.9 DEG C(337.8 DEG F)

AIR FLOW= 5.03 KG/SEC(11.10#/SEC), FUEL FLOW= 0.0 KG/HR(0.0 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 10. GROUP NUMBER: II

RUN NUMBER: 105



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

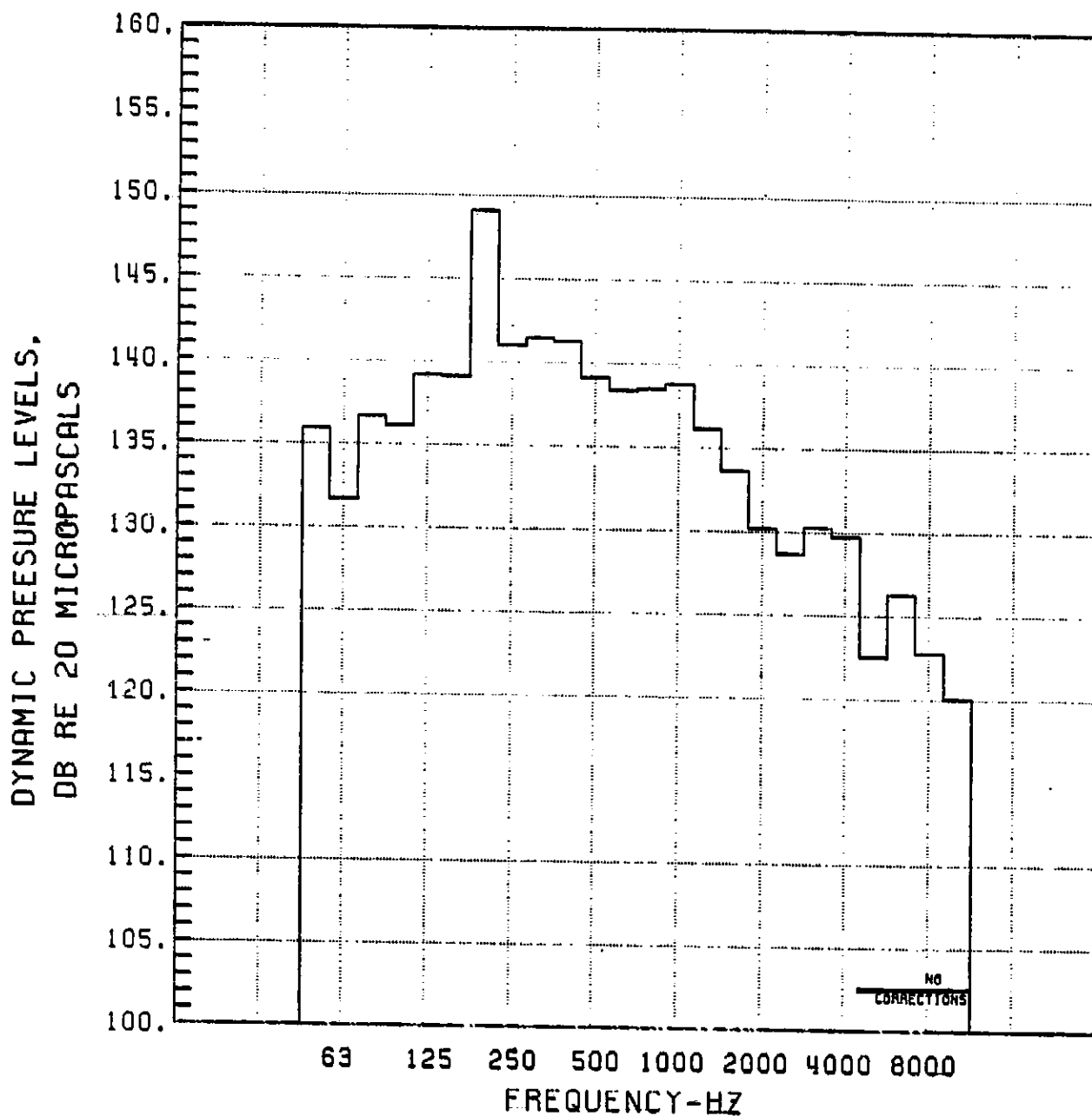
INLET PRESS=373.4 KPA(54.2 PSIA), COMB EXIT TEMP=324.1 DEG C(615.3 DEG F)

AIR FLOW= 5.06 KG/SEC(11.16*/SEC), FUEL FLOW=132.6 KG/HR(292.6 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 1. GROUP NUMBER: II

RUN NUMBER: 112



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=373.4 KPA(54.2 PSIA), COMB EXIT TEMP=324.1 DEG C(615.3 DEG F)

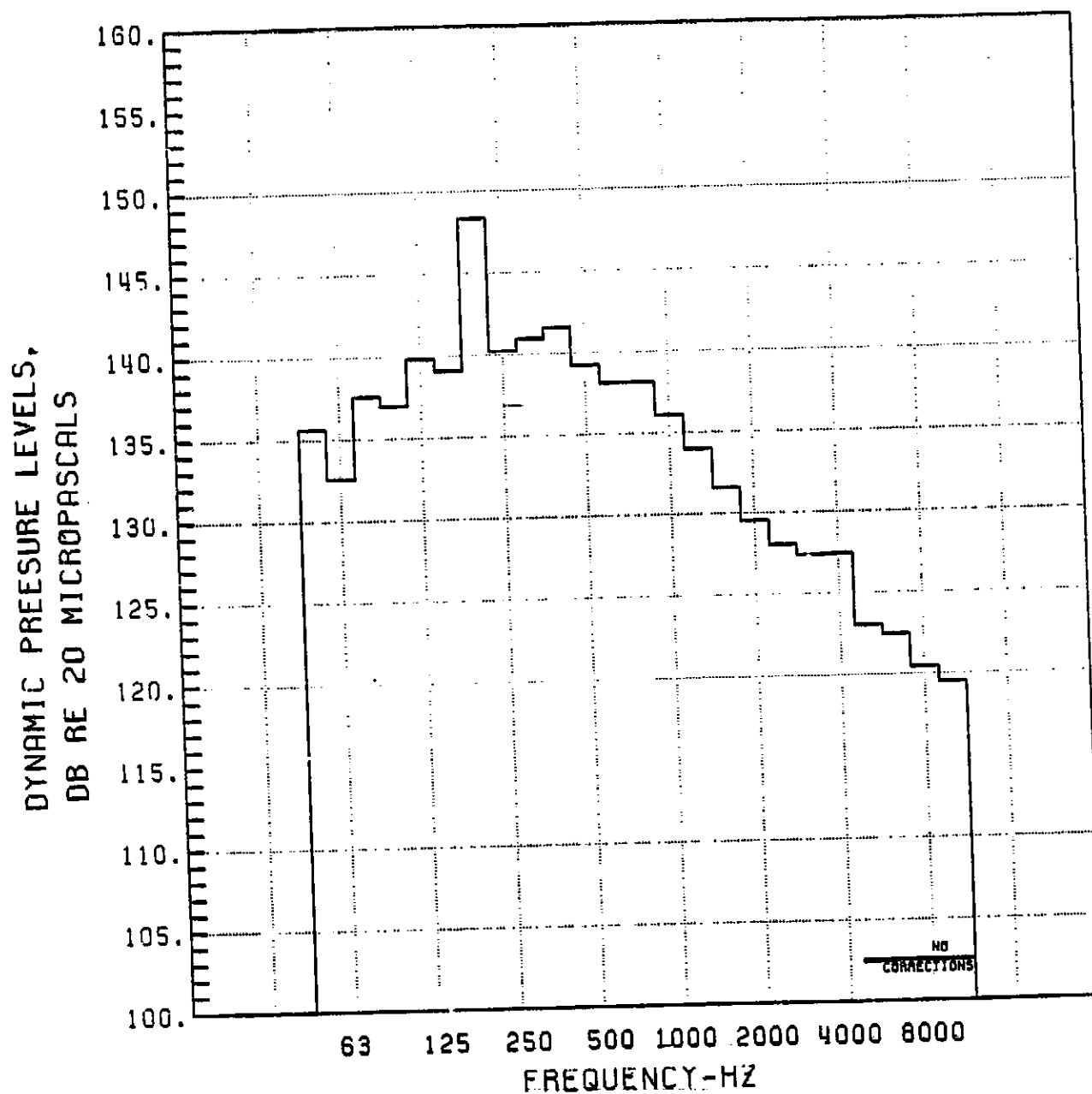
AIR FLOW= 5.06 KG/SEC(11.16#/SEC), FUEL FLOW=132.6 KG/HR(292.6 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 2.

GROUP NUMBER: II

RUN NUMBER: 112



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

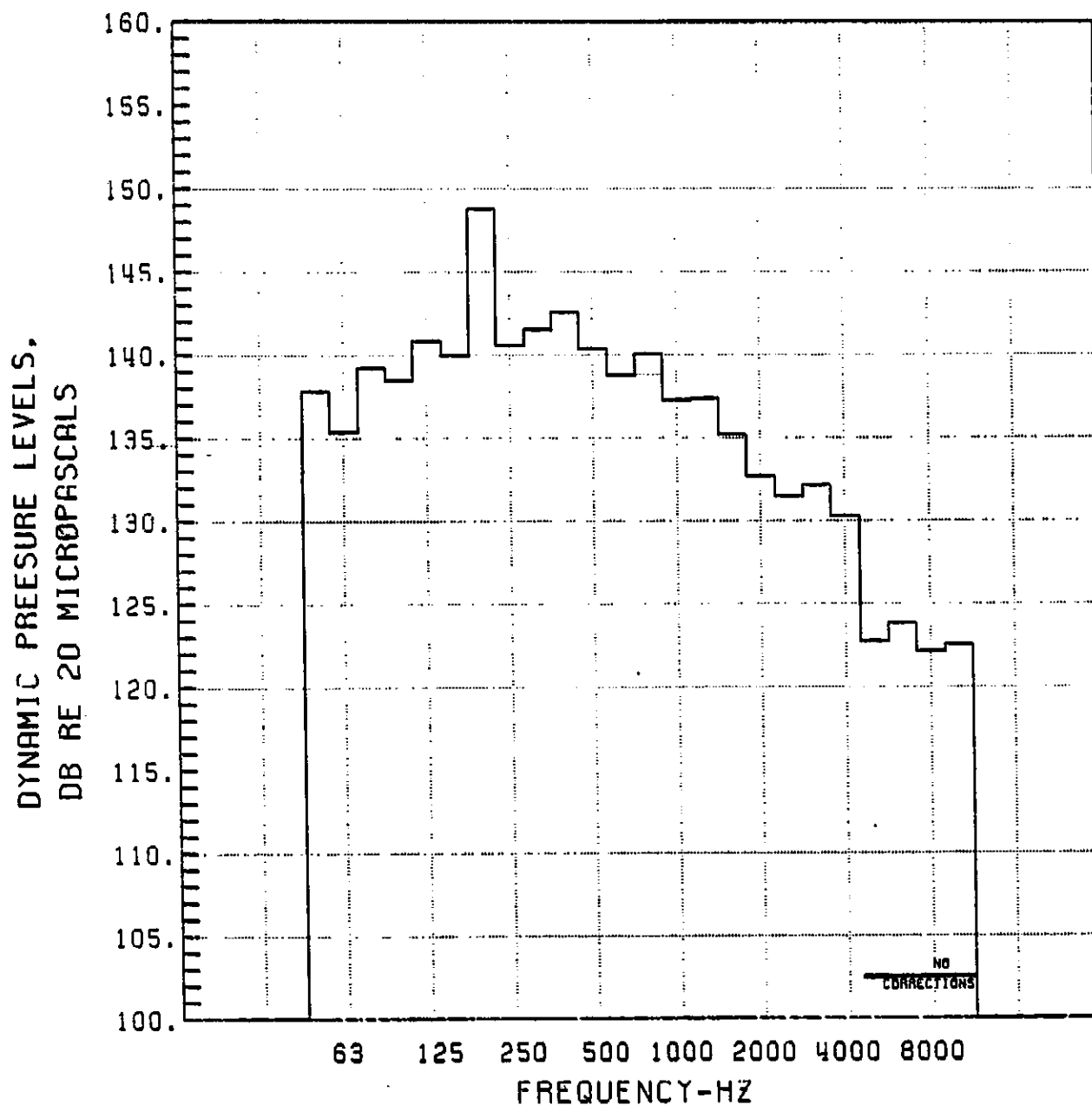
INLET PRESS=373.4 KPA(54.2 PSIA), COMB EXIT TEMP=324.1 DEG C(615.3 DEG F)

AIR FLOW= 5.06 KG/SEC(11.16*/SEC), FUEL FLOW=132.6 KG/HR(292.6 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 3. GROUP NUMBER: II

RUN NUMBER: 112



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

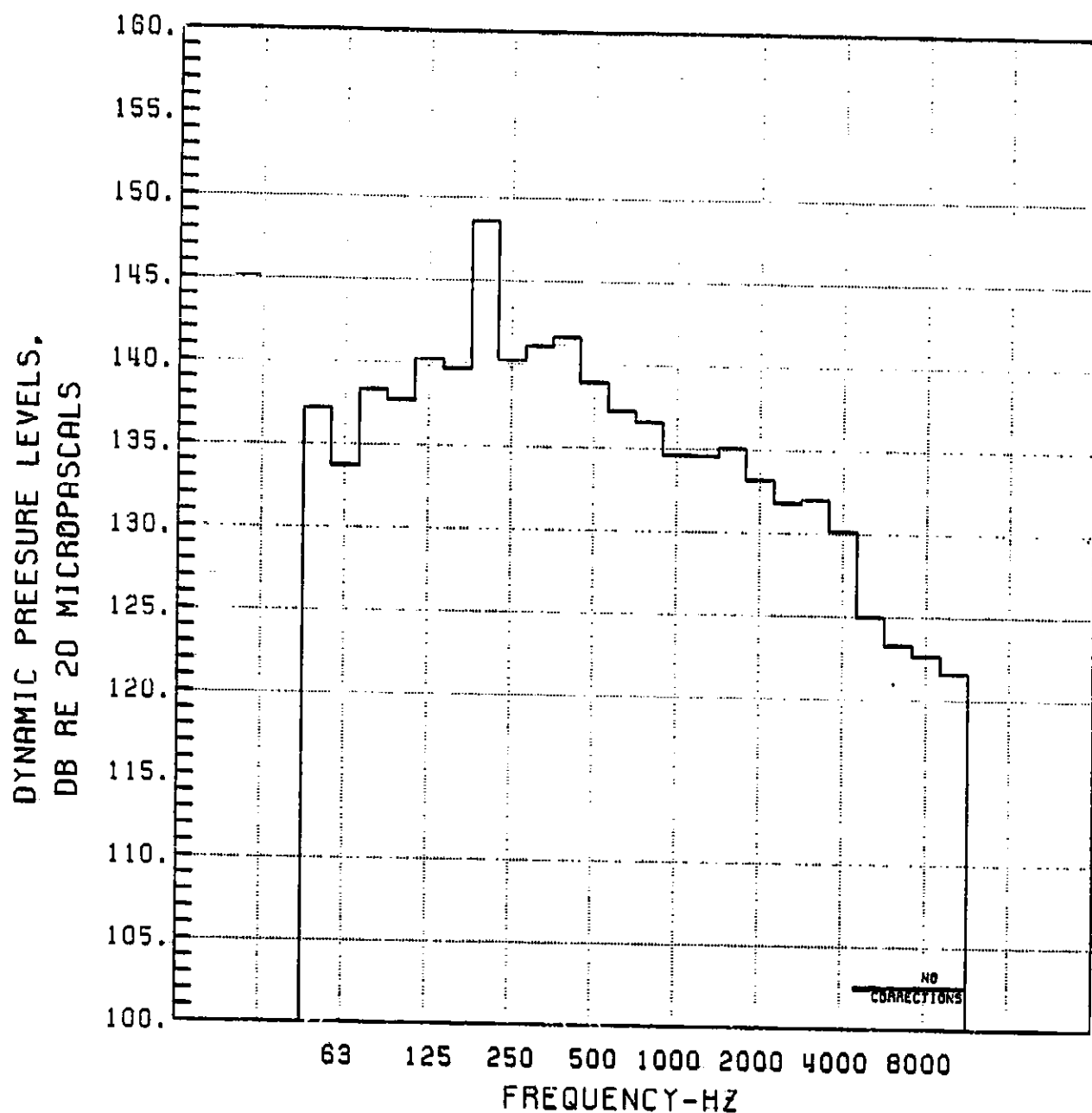
INLET PRESS=373.4 KPA(54.2 PSIA), COMB EXIT TEMP=324.1 DEG C(615.3 DEG F)

AIR FLOW= 5.06 KG/SEC(11.16#/SEC), FUEL FLOW=132.6 KG/HR(292.6 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 4. GROUP NUMBER: 11

RUN NUMBER: 112



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

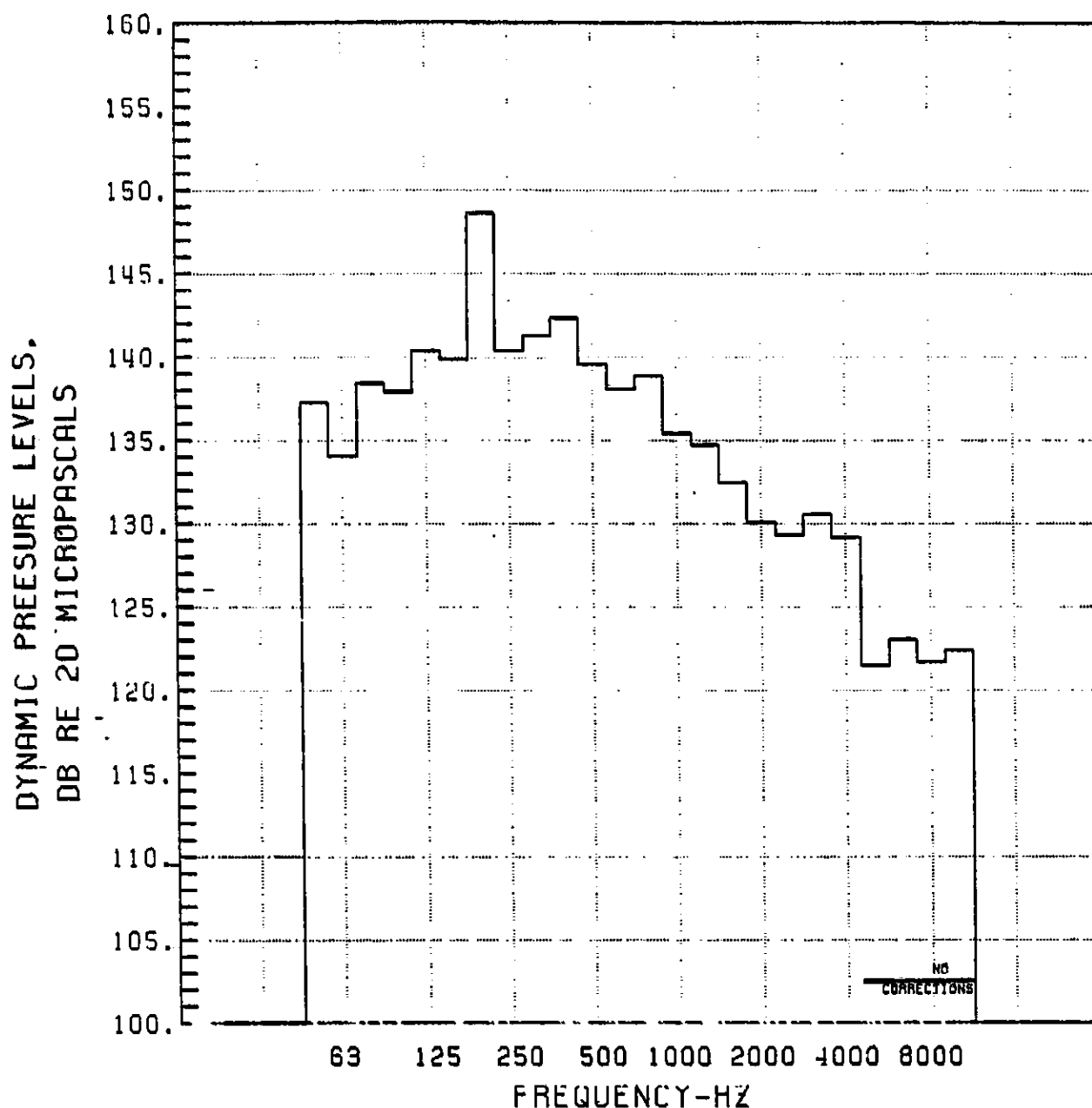
INLET PRESS=373.4 KPA(54.2 PSIA), COMB EXIT TEMP=324.1 DEG C(615.3 DEG F)

AIR FLOW= 5.06 KG/SEC(11.16#/SEC), FUEL FLOW=132.6 KG/HR(292.6 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 5. GROUP NUMBER: II

RUN NUMBER: 112



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

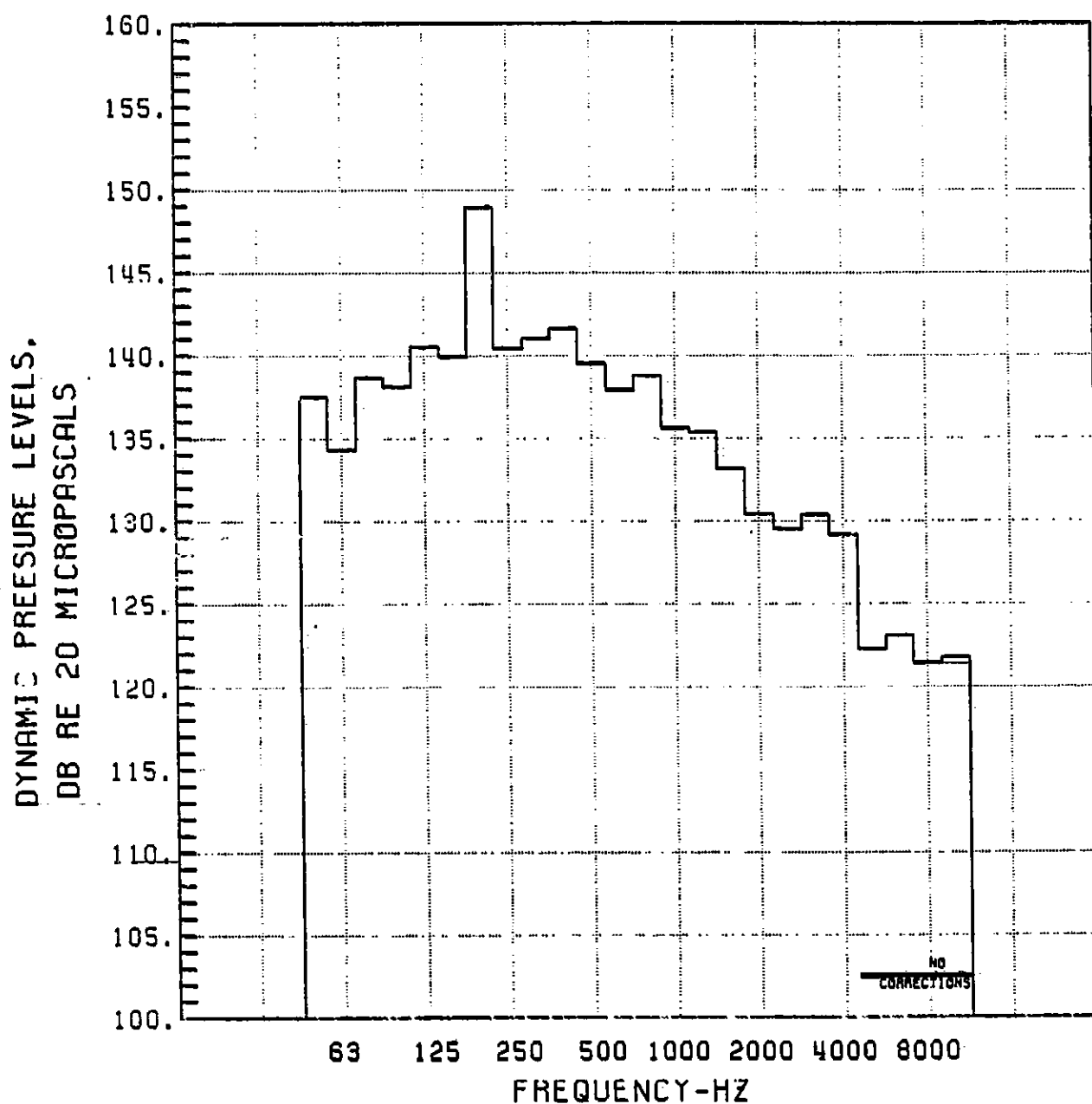
INLET PRESS=373.4 KPA(54.2 PSIA), COMB EXIT TEMP=324.1 DEG C (615.3 DEG F)

AIR FLOW= 5.06 KG/SEC(11.16*/SEC), FUEL FLOW=132.6 KG/HR(292.6 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 6. GROUP NUMBER: II

RUN NUMBER: 112



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=373.4 KPA(54.2 PSIA), COMB EXIT TEMP=324.1 DEG C(615.3 DEG F)

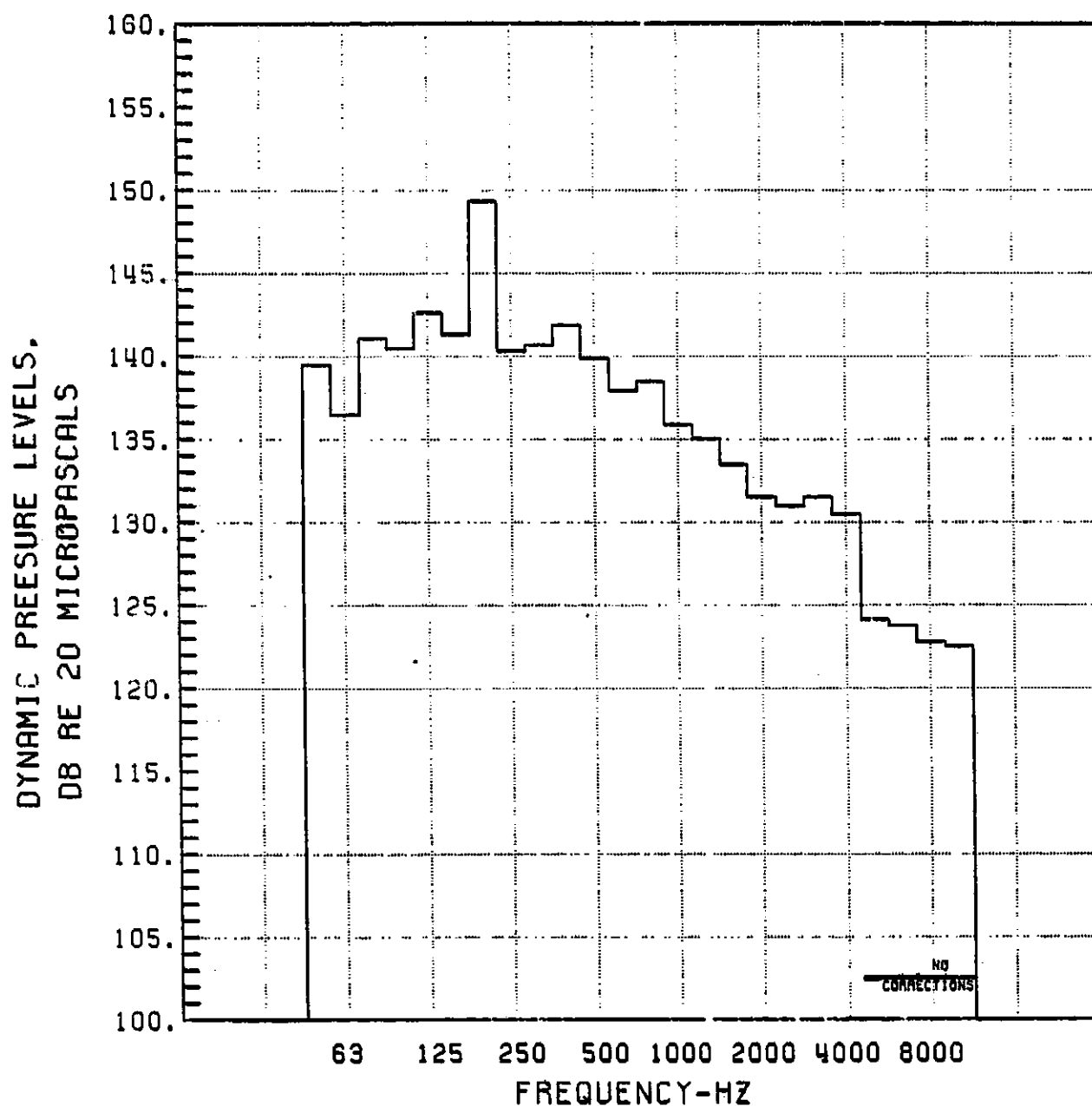
AIR FLOW= 5.06 KG/SEC(11.16*/SEC), FUEL FLOW=132.6 KG/HR(292.6 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 7. GROUP NUMBER: II

RUN NUMBER: 112

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OF POOR QUALITY



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=373.4 KPA(54.2 PSIA), COMB EXIT TEMP=324.1 DEG C(615.3 DEG F)

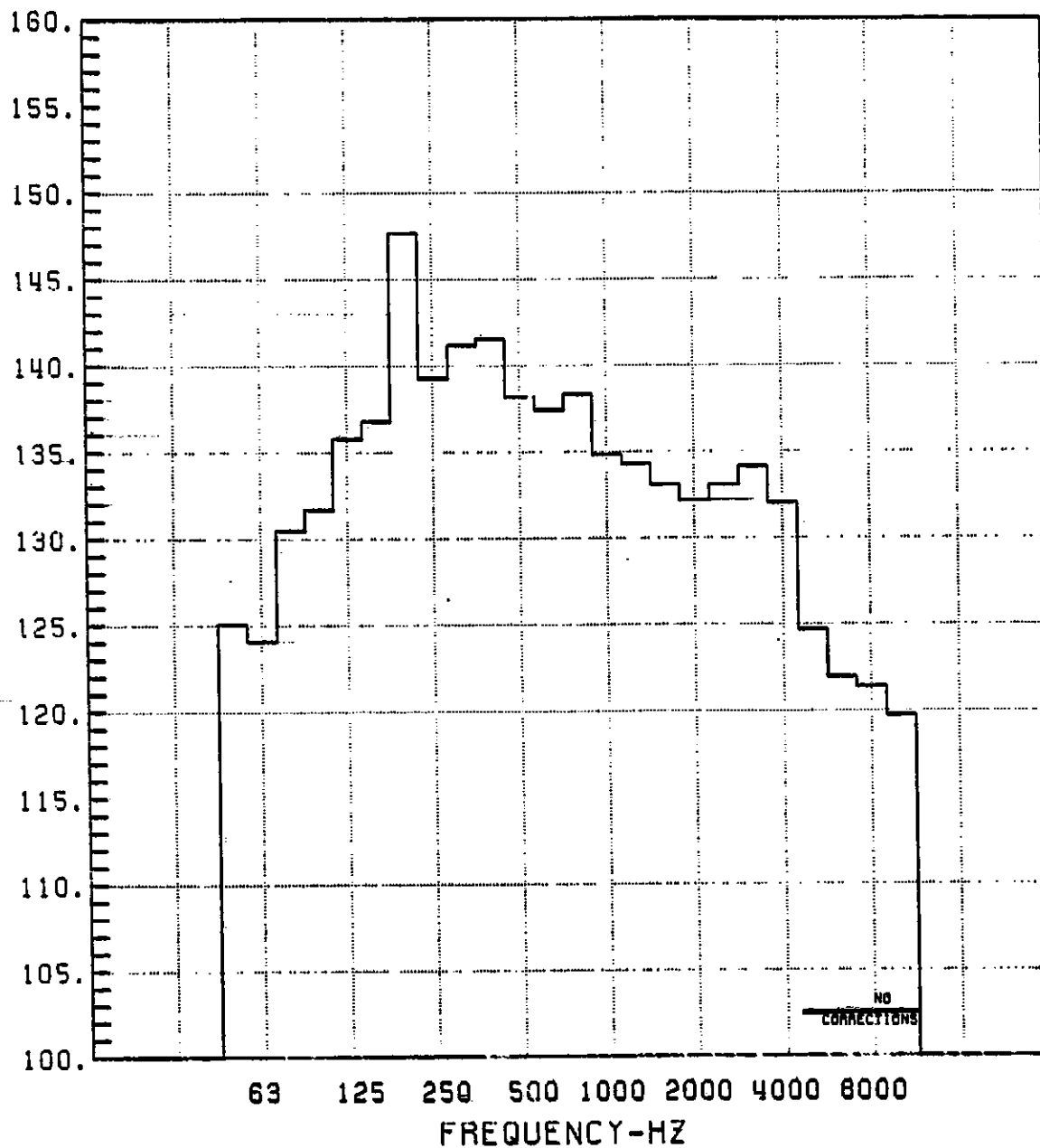
AIR FLOW= 5.06 KG/SEC(11.16#/SEC), FUEL FLOW=132.6 KG/HR(292.6 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 8. GROUP NUMBER: II

RUN NUMBER: 112

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

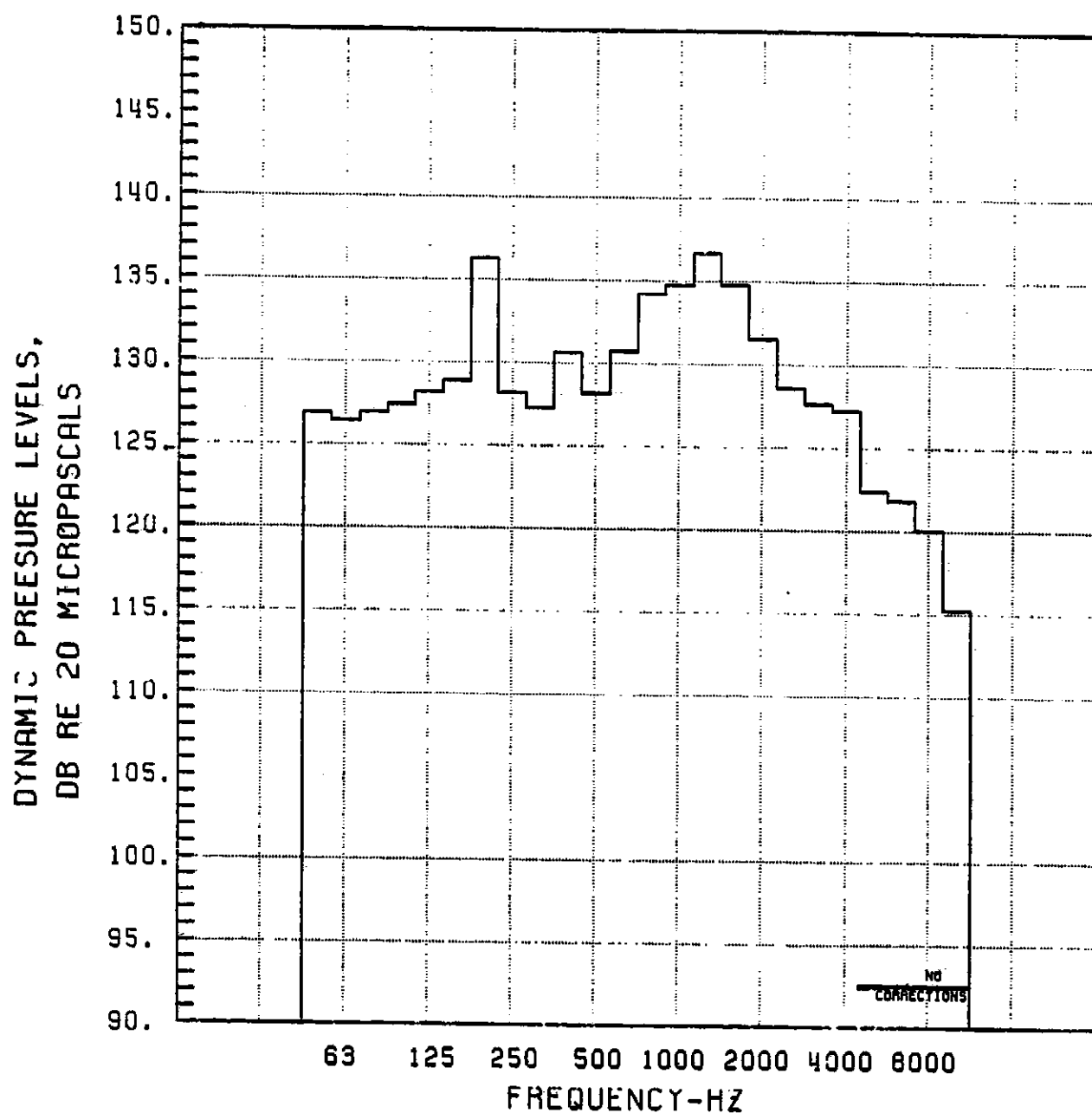
INLET PRESS=373.4 KPA(54.2 PSIA), COMB EXIT TEMP=324.1 DEG C(615.3 DEG F)

AIR FLOW= 5.06 KG/SEC(11.16*/SEC), FUEL FLOW=132.6 KG/HR(292.6 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 9. GROUP NUMBER: II

RUN NUMBER: 112



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=373.4 KPA(54.2 PSIA), COMB EXIT TEMP=324.1 DEG C(615.3 DEG F)

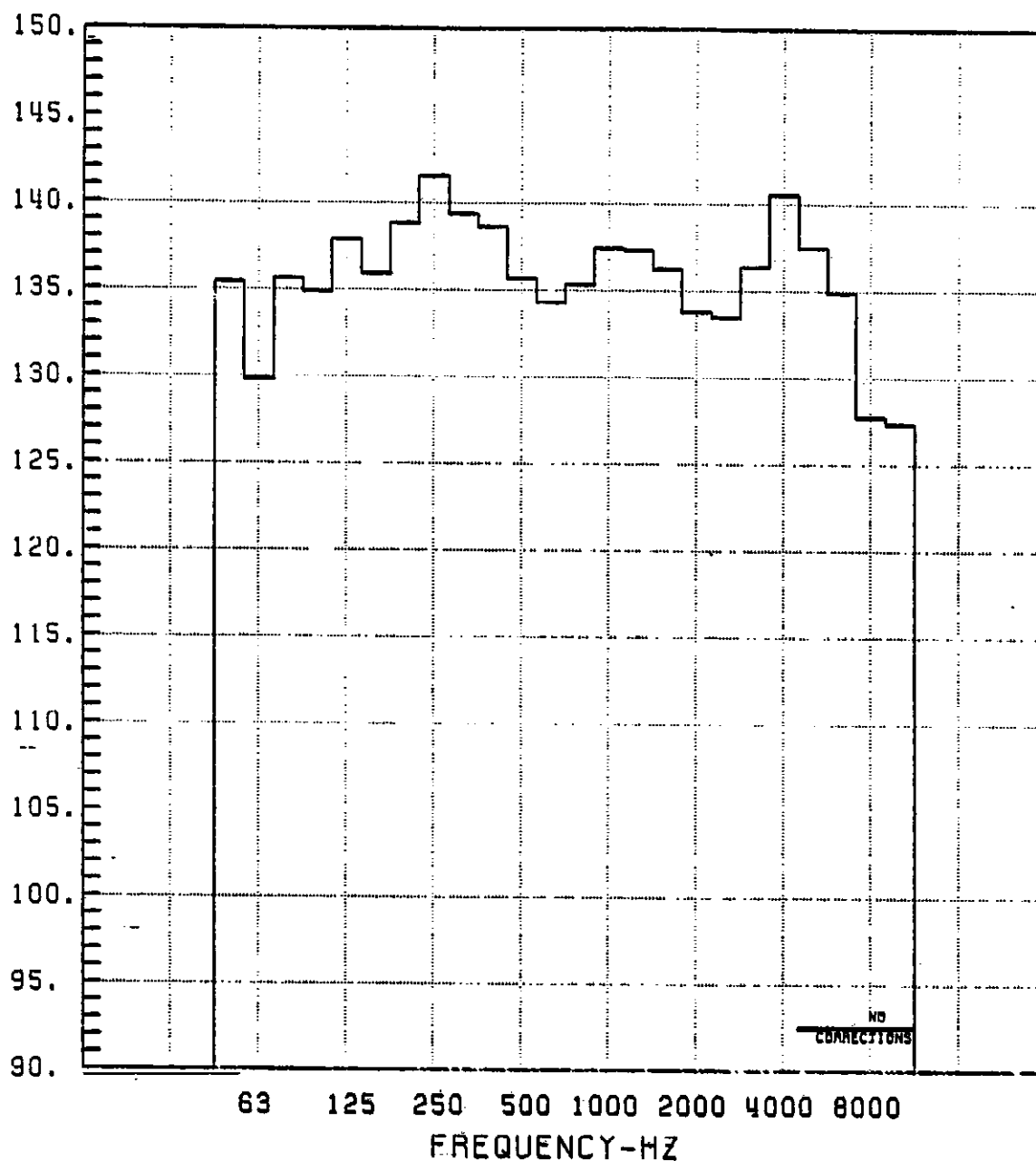
AIR FLOW= 5.06 KG/SEC(11.16#/SEC), FUEL FLOW=132.6 KG/HR(292.6 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 10. GROUP NUMBER: II

RUN NUMBER: 112

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=372.9 KPA(54.1 PSIA), COMB EXIT TEMP=585.5 DEG C(1085.9 DEG F)

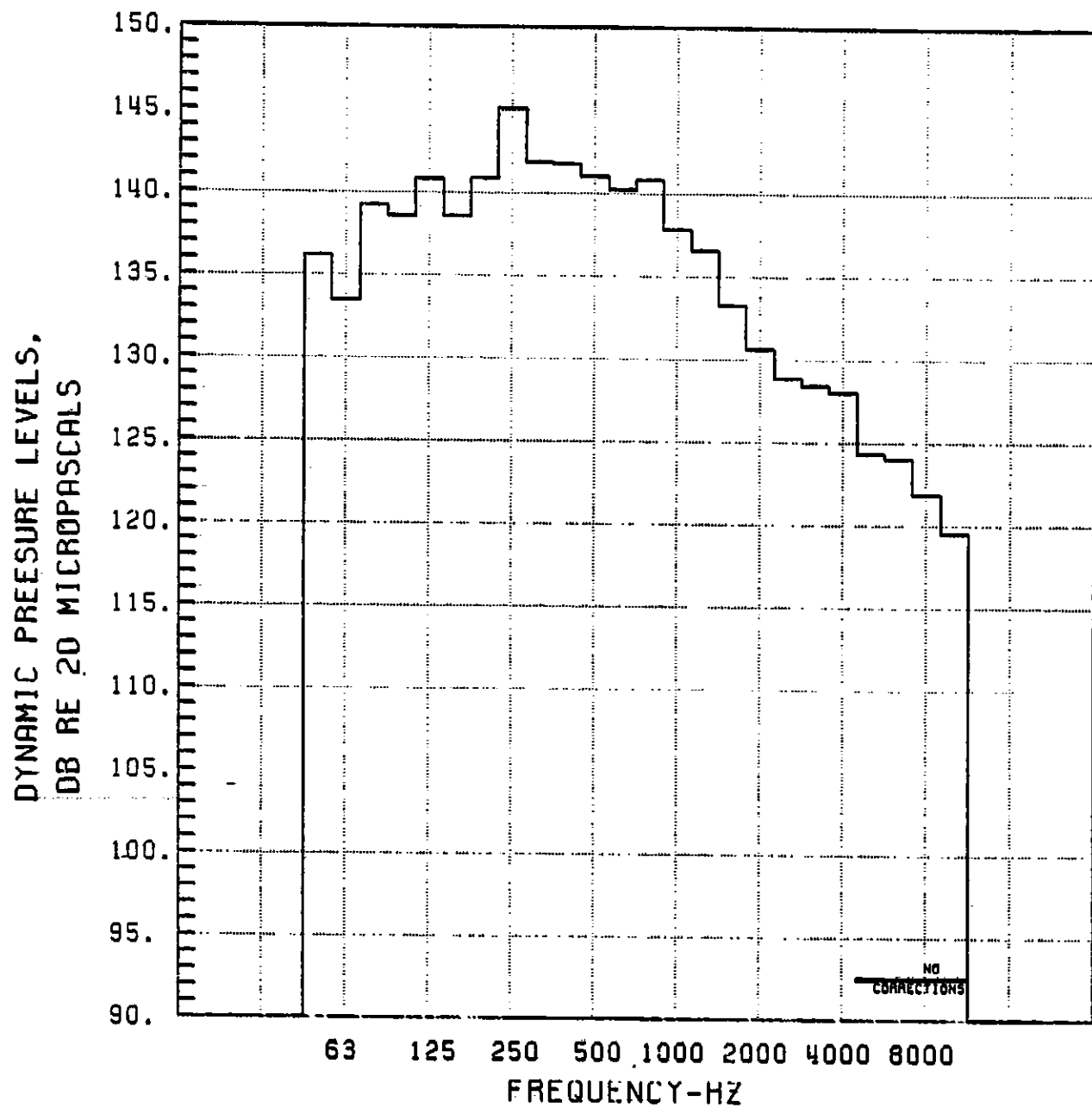
AIR FLOW= 5.08 KG/SEC(11.20*/SEC), FUEL FLOW=195.2 KG/HR(430.3 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 1.

GROUP NUMBER: II

RUN NUMBER: 138



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=372.9 KPA(54.1 PSIA), COMB EXIT TEMP=585.5 DEG C(1085.9 DEG F)

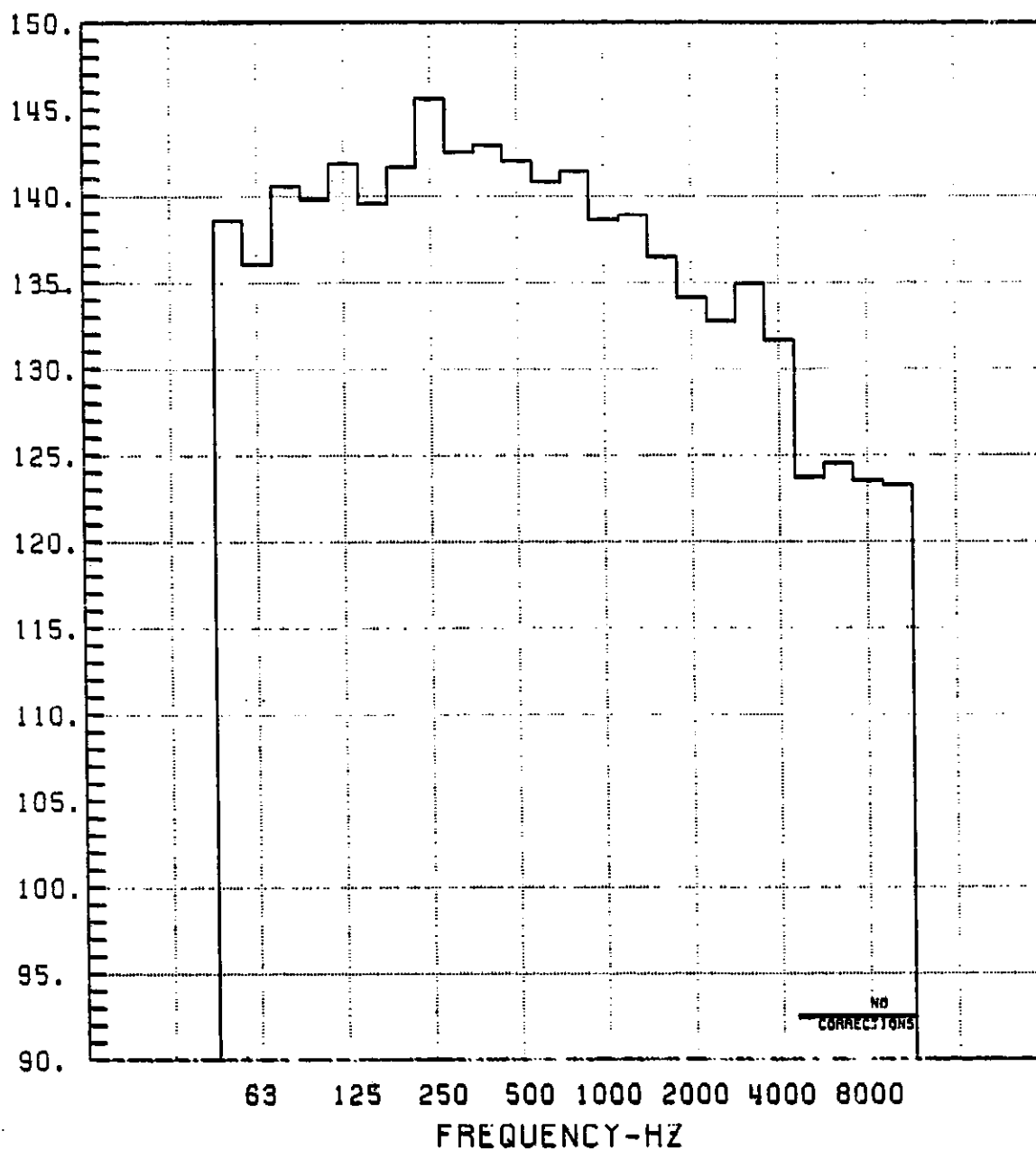
AIR FLOW= 5.08 KG/SEC(11.20#/SEC), FUEL FLOW=195.2 KG/HR(430.3 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 3. GROUP NUMBER: II

RUN NUMBER: 138

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: TF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

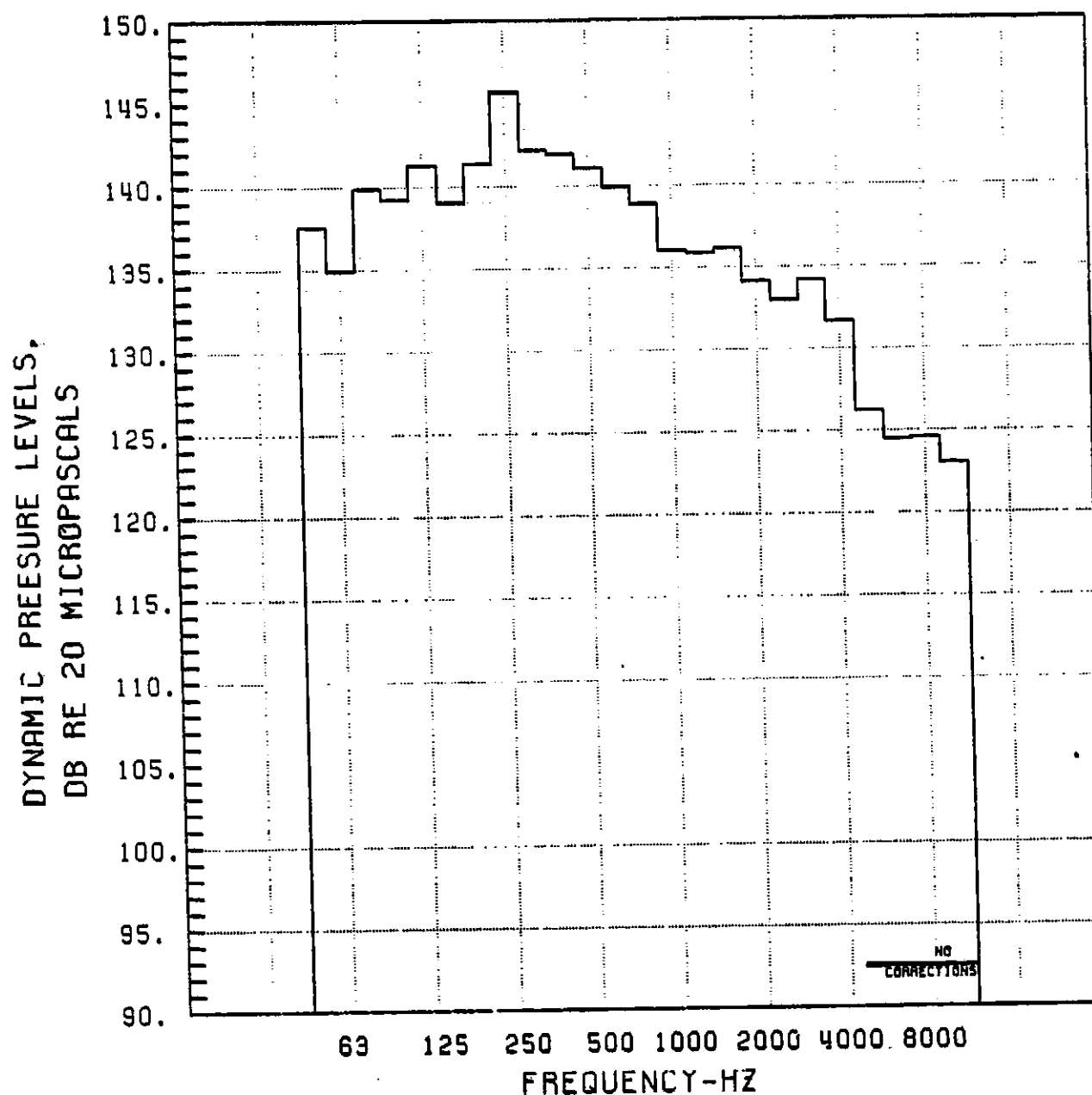
INLET PRESS=372.9 KPA(54.1 PSIA), COMB EXIT TEMP=585.5 DEG C(1085.9 DEG F)

AIR FLOW= 5.08 KG/SEC(11.20*/SEC), FUEL FLOW=195.2 KG/HR(430.3 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 4. GROUP NUMBER: II

RUN NUMBER: 138



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

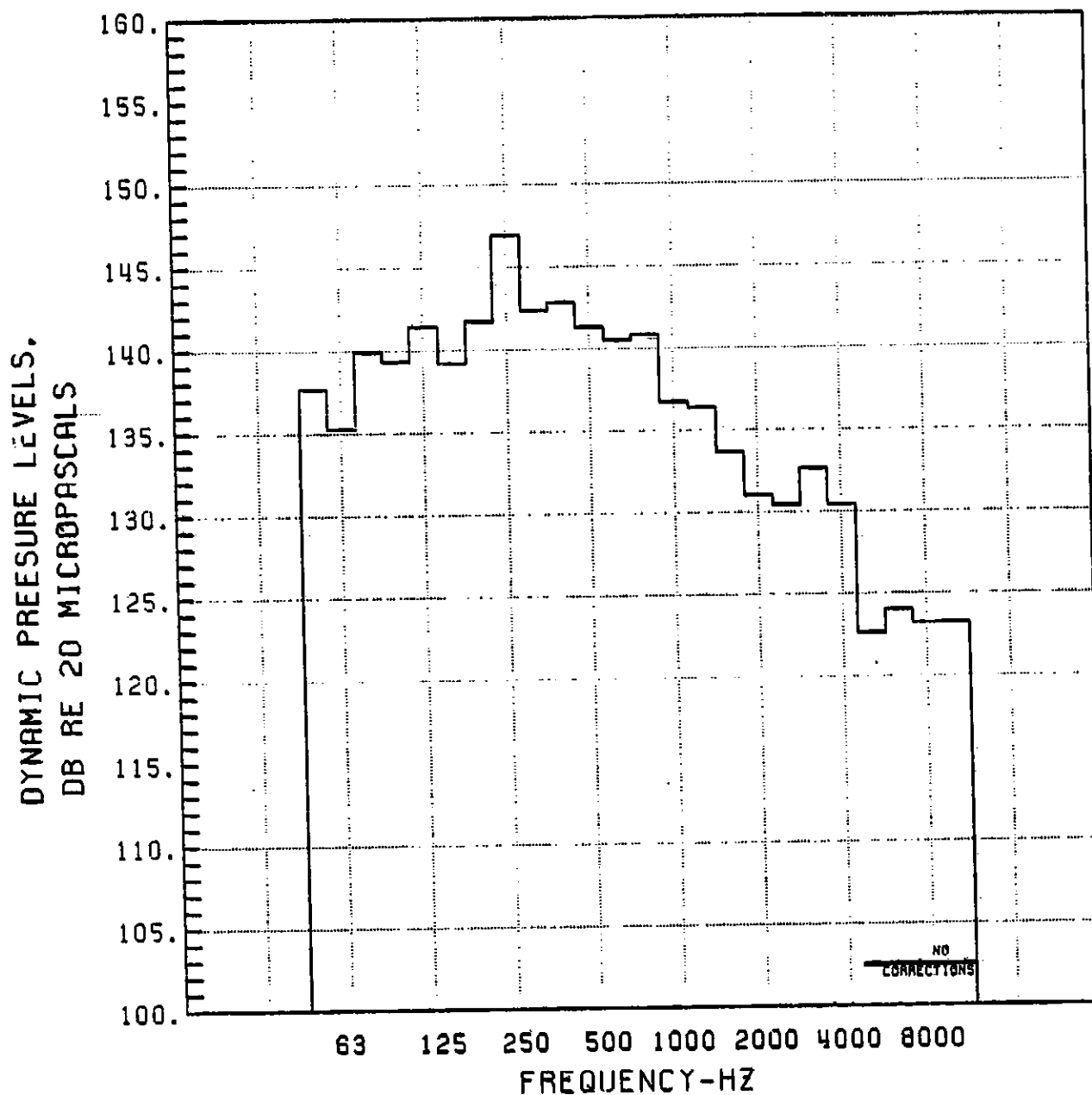
INLET PRESS=372.9 KPA(54.1 PSIA), COMB EXIT TEMP=585.5 DEG C(1085.9 DEG F)

AIR FLOW= 5.08 KG/SEC(11.20*/SEC), FUEL FLOW=195.2 KG/HR(430.3 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 5. GROUP NUMBER: II

RUN NUMBER: 138



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=372.9 KPA(54.1 PSIA), COMB EXIT TEMP=585.5 DEG C(1085.9 DEG F)

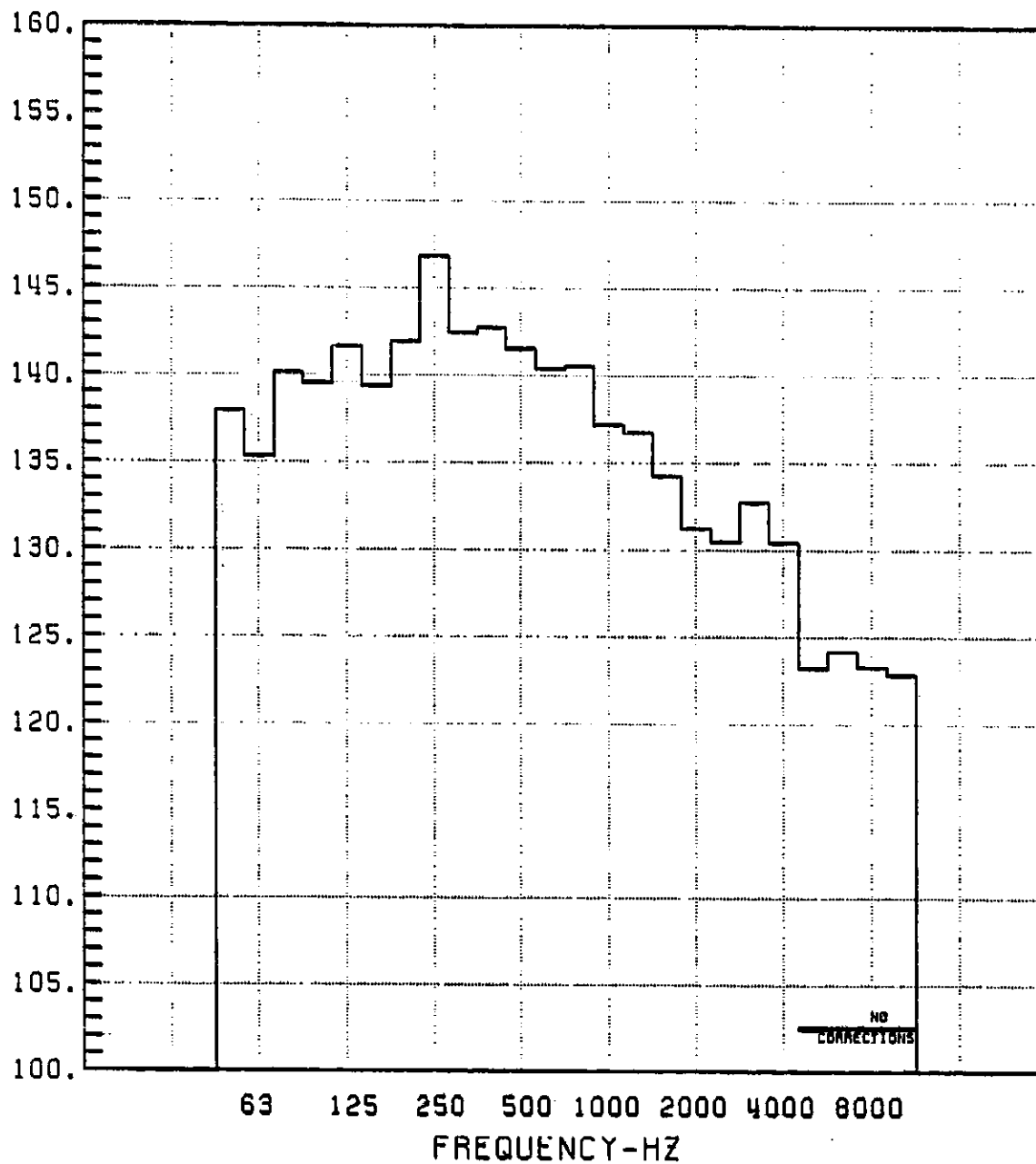
AIR FLOW= 5.08 KG/SEC(11.20#/SEC), FUEL FLOW=195.2 KG/HR(430.3 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 6. GROUP NUMBER: II

RUN NUMBER: 138

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=372.9 KPA(54.1 PSIA), COMB EXIT TEMP=585.5 DEG C(1085.9 DEG F)

AIR FLOW= 5.09 KG/SEC(11.20*/SEC), FUEL FLOW=195.2 KG/HR(430.3 */HR)

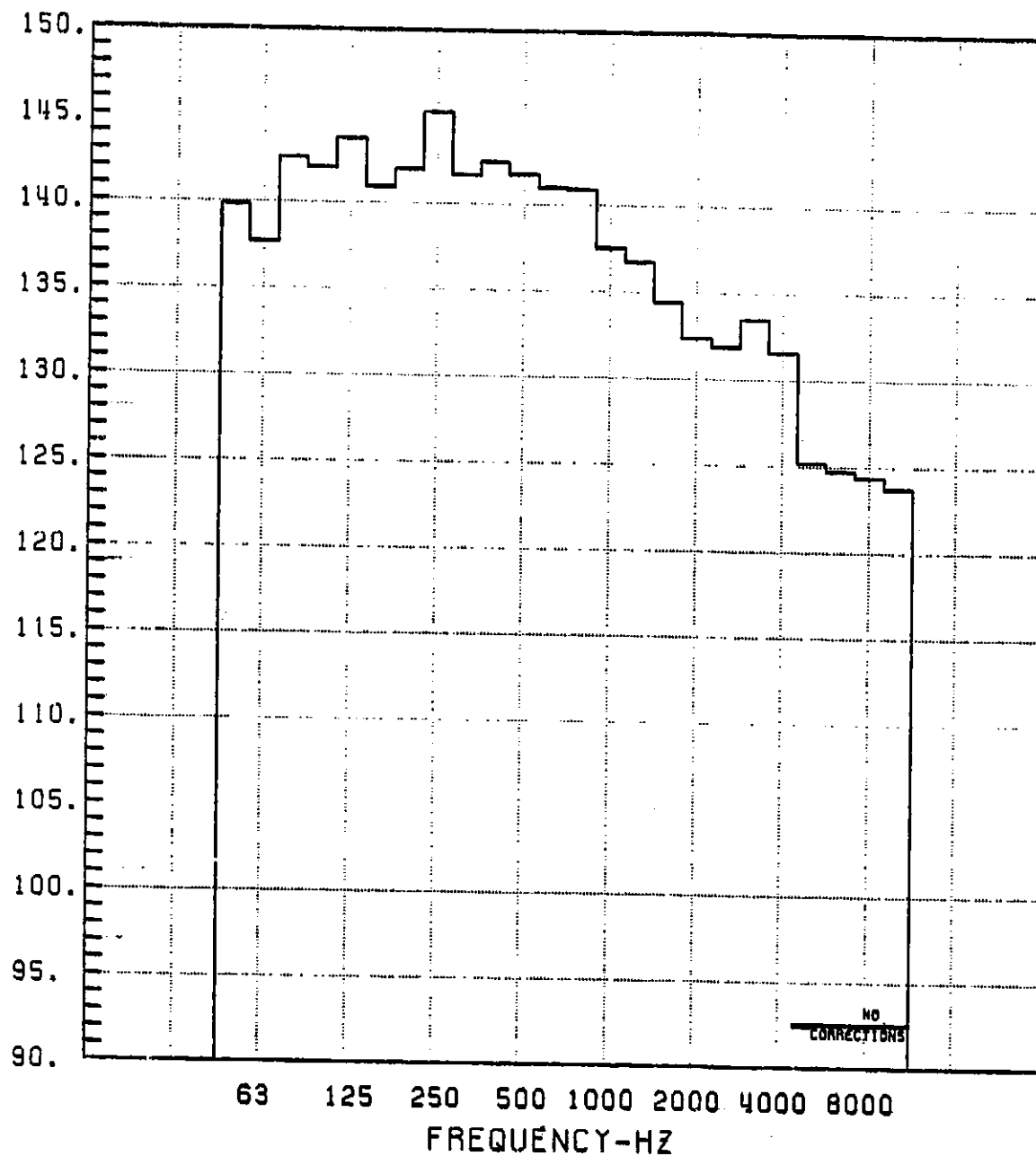
TEST DATE: FEB. 22, 1981

PROBE NUMBER: 7.

GROUP NUMBER: 11

RUN NUMBER: 138

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

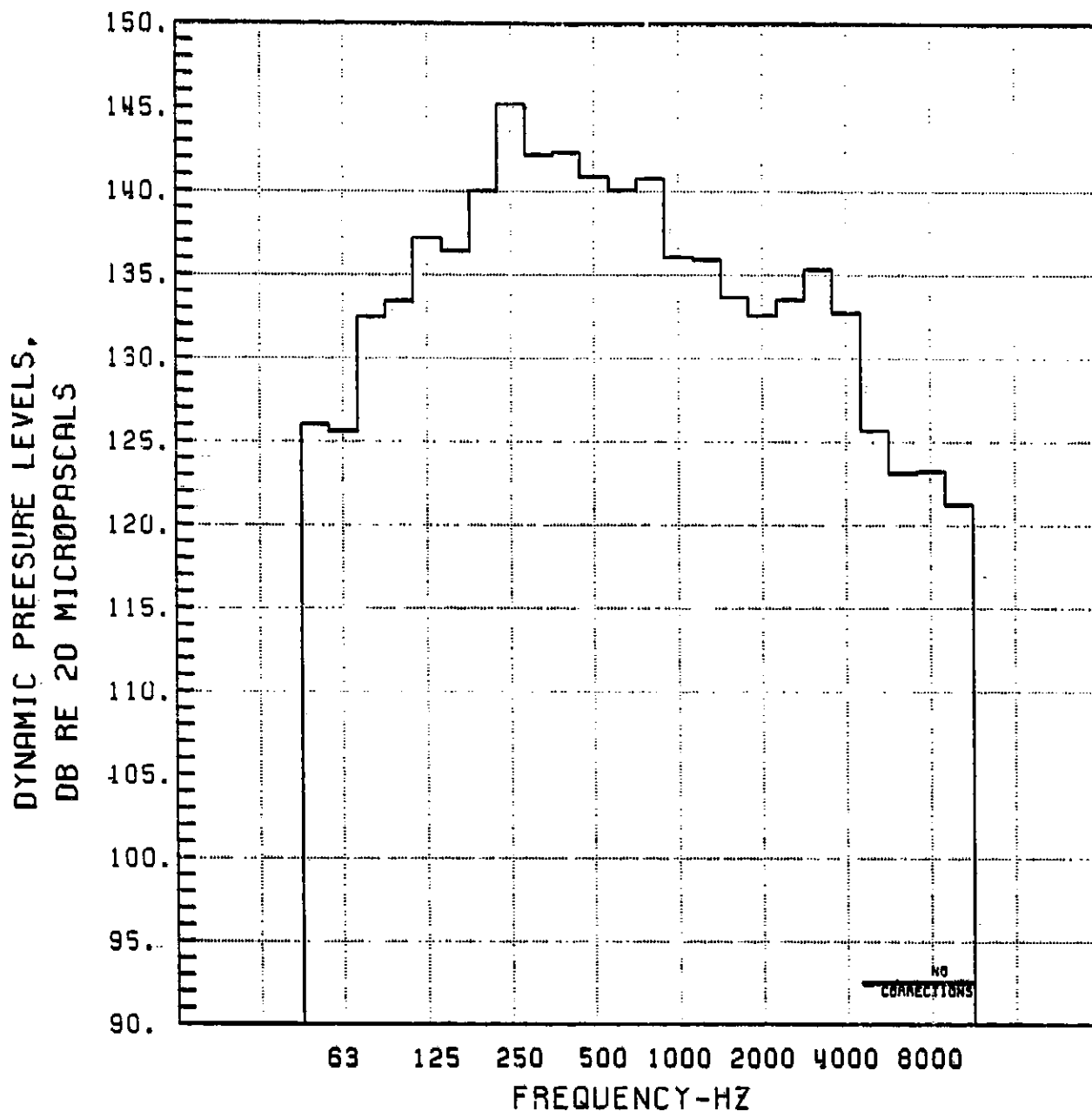
INLET PRESS=372.9 KPA(54.1 PSIA), COMB EXIT TEMP=585.5 DEG C(1085.9 DEG F)

AIR FLOW= 5.08 KG/SEC(11.20#/SEC), FUEL FLOW=195.2 KG/HR(430.3 #/HR)

TEST DATE: FEB. 22, 1981

PAGE NUMBER: 8. GROUP NUMBER: II

RUN NUMBER: 138



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS.

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=372.9 KPA(54.1 PSIA), COMB EXIT TEMP=585.5 DEG C(1085.9 DEG F)

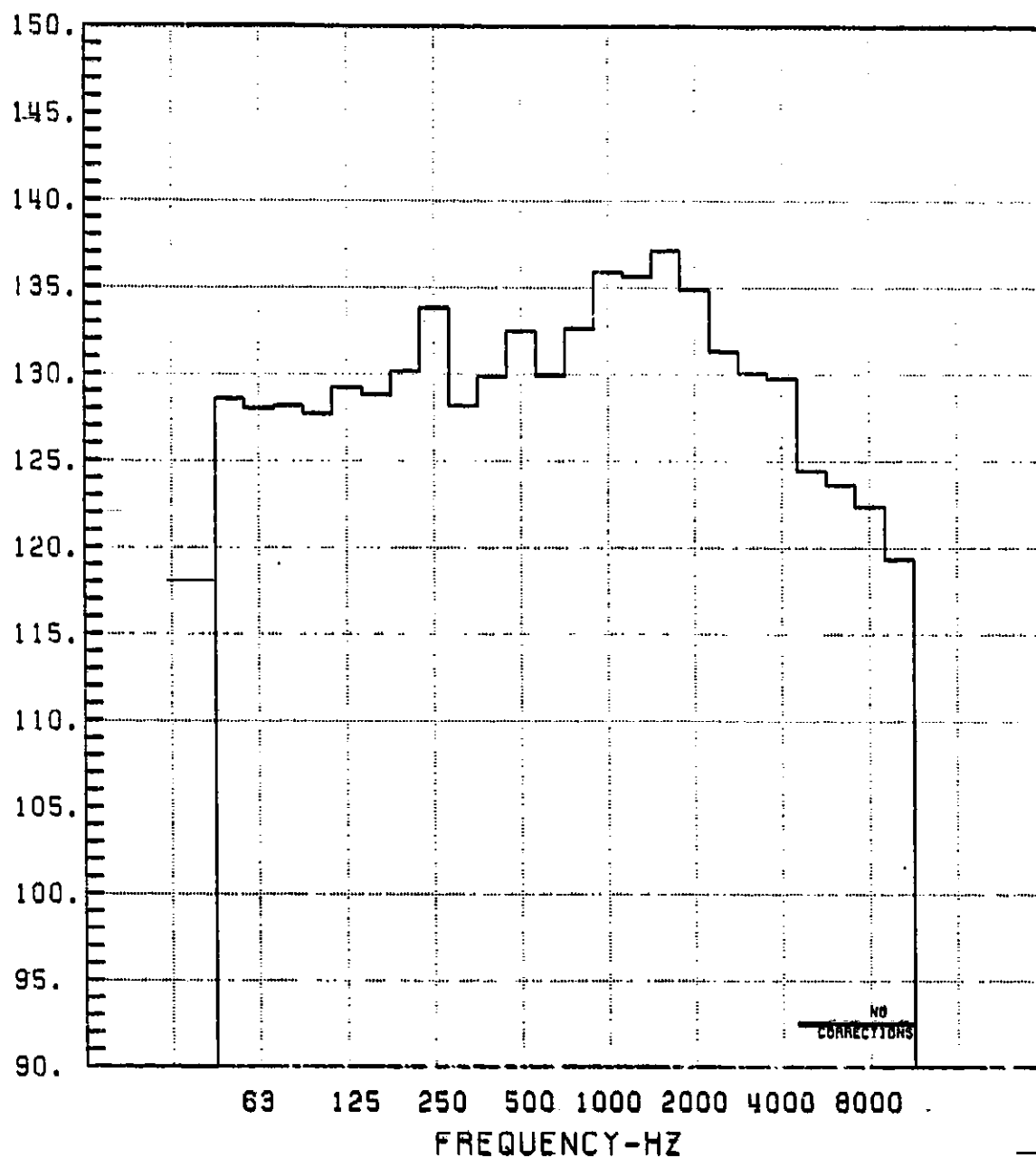
AIR FLOW= 5.08 KG/SEC(11.20#/SEC), FUEL FLOW=195.2 KG/HR(430.3 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 9. GROUP NUMBER: II

RUN NUMBER: 136

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

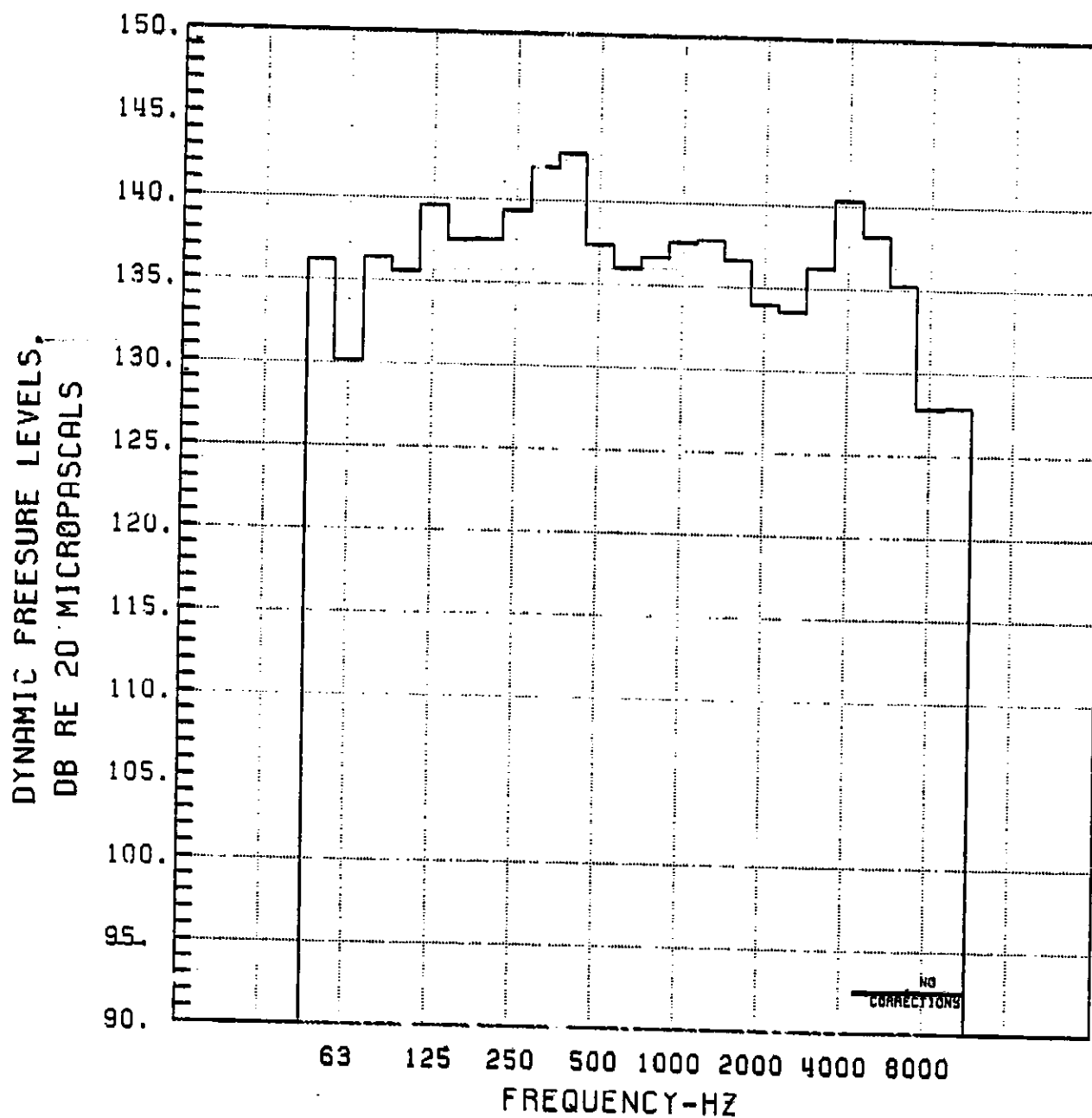
INLET PRESS=372.9 KPA(54.1 PSIA), COMB EXIT TEMP=585.5 DEG C(1085.9 DEG F)

AIR FLOW= 5.08 KG/SEC(11.20#/SEC), FUEL FLOW=195.2 KG/HR(430.3 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 10. GROUP NUMBER: II

RUN NUMBER: 138



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

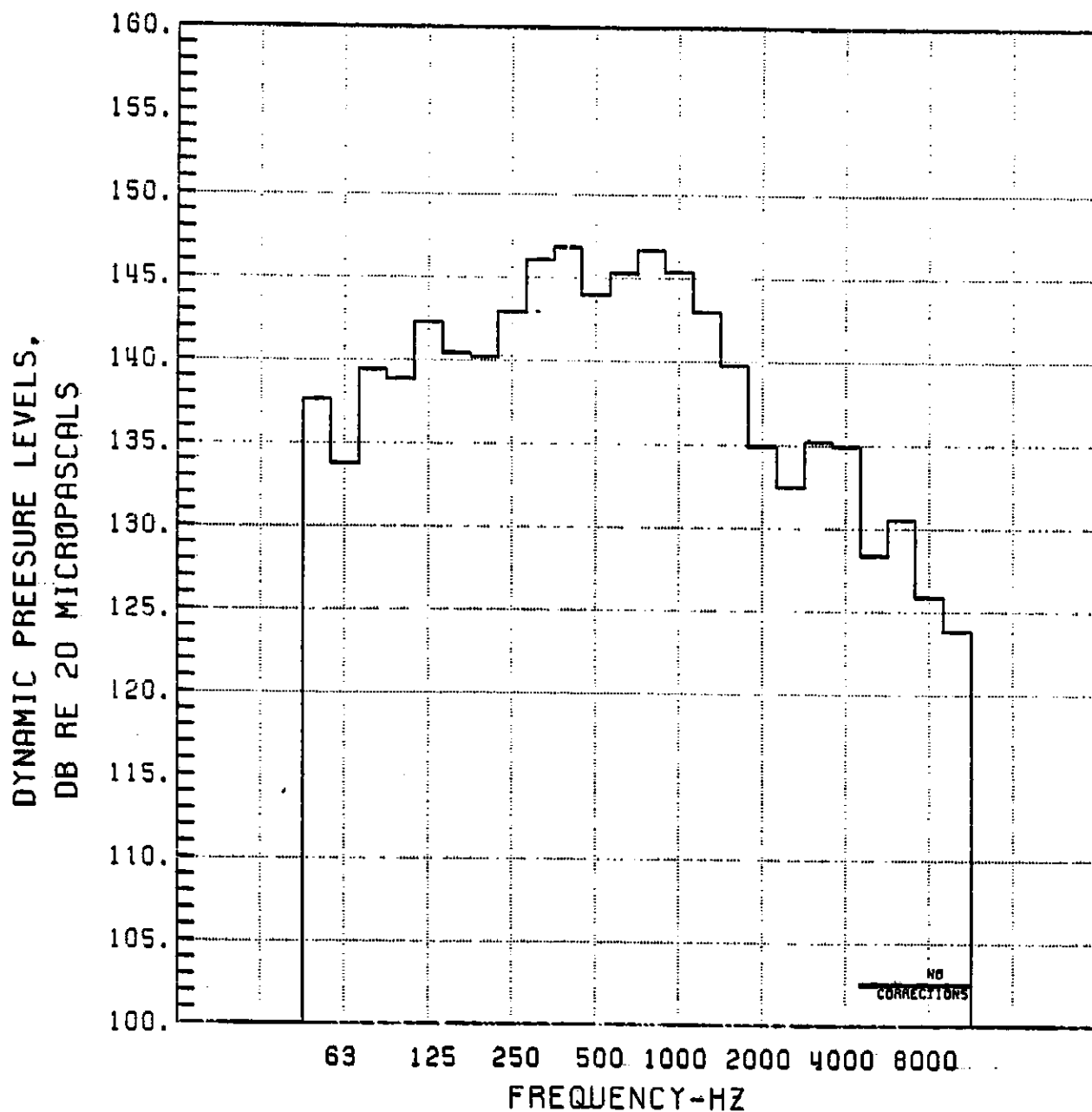
INLET PRESS=372.8 KPA(54.1 PSIA), COMB EXIT TEMP=867.1 DEG C(1592.7 DEG F)

AIR FLOW= 5.12 KG/SEC(11.28#/SEC), FUEL FLOW=328.3 KG/HR(723.7 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 1. GROUP NUMBER: II

RUN NUMBER: 137



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=372.8 KPA(54.1 PSIA), COMB EXIT TEMP=867.1 DEG C(1592.7 DEG F)

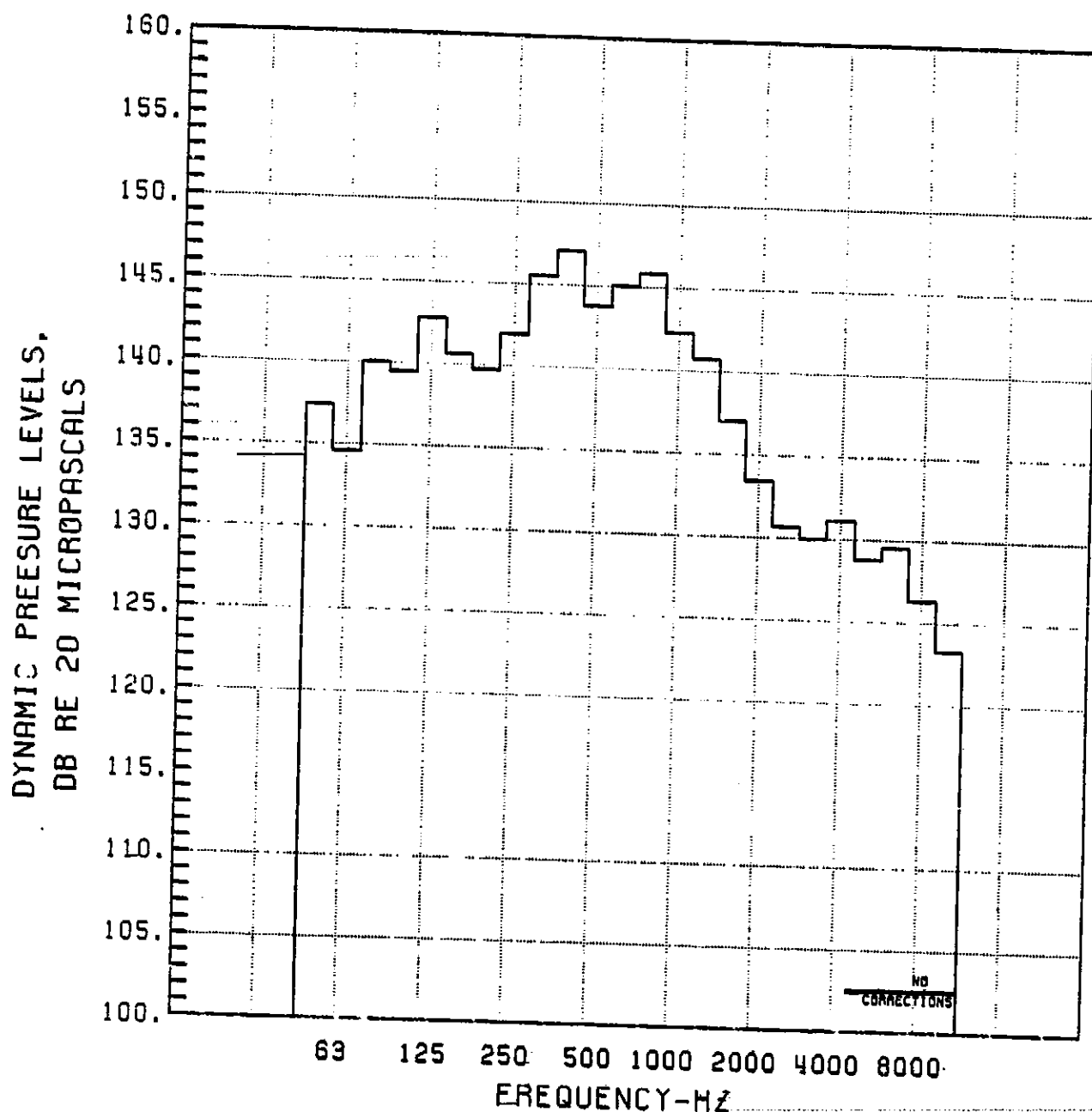
AIR FLOW= 5.12 KG/SEC(11.28*/SEC), FUEL FLOW=328.3 KG/HR(723.7 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 2.

GROUP NUMBER: II

RUN NUMBER: 137



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

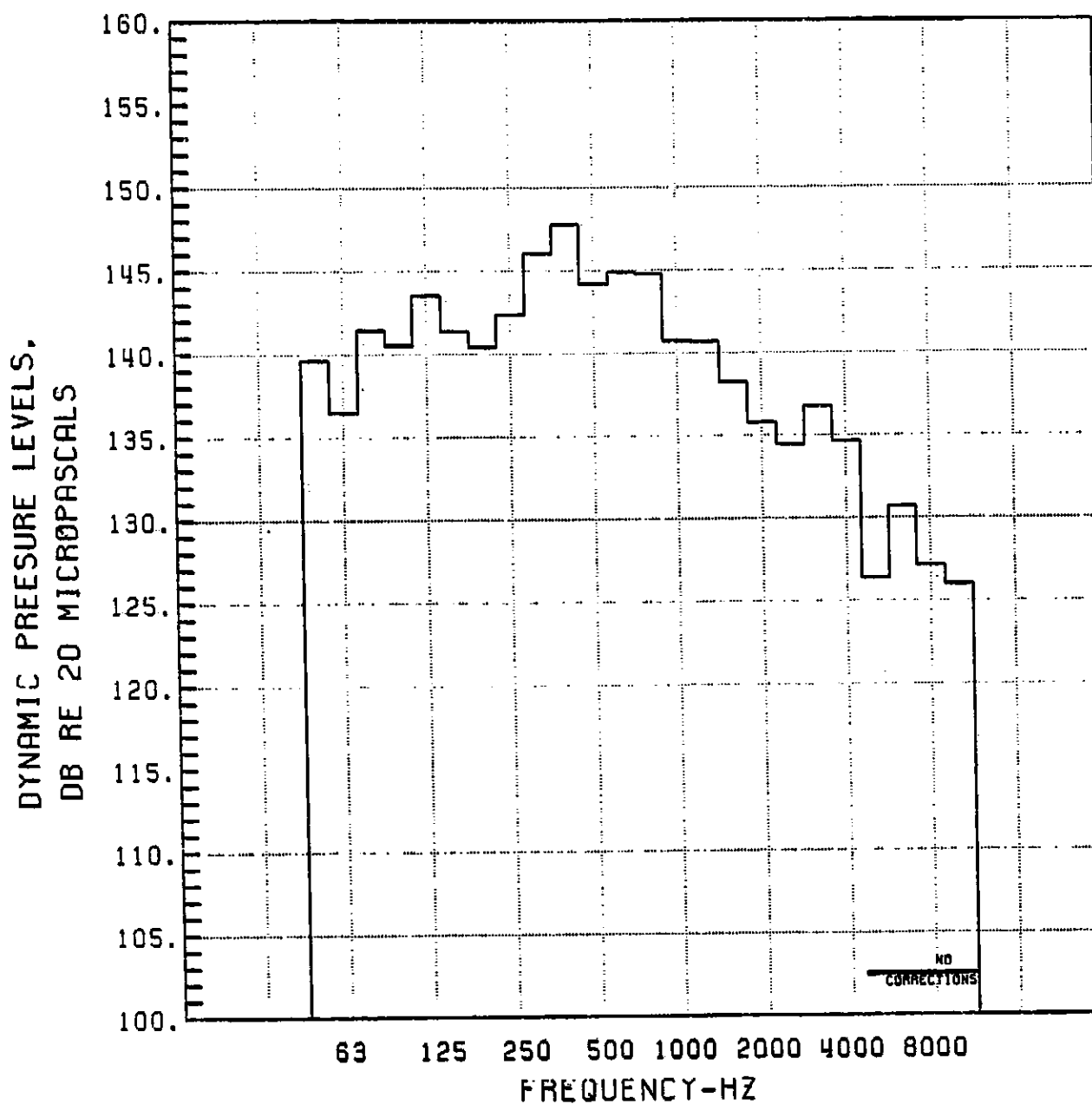
INLET PRESS=372.8 KPA(54.1 PSIA), COMB EXIT TEMP=867.1 DEG C(1592.7 DEG F)

AIR FLOW= 5.12 KG/SEC(11.28*/SEC), FUEL FLOW=328.3 KG/HR(723.7 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 3. GROUP NUMBER: II

RUN NUMBER: 137



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

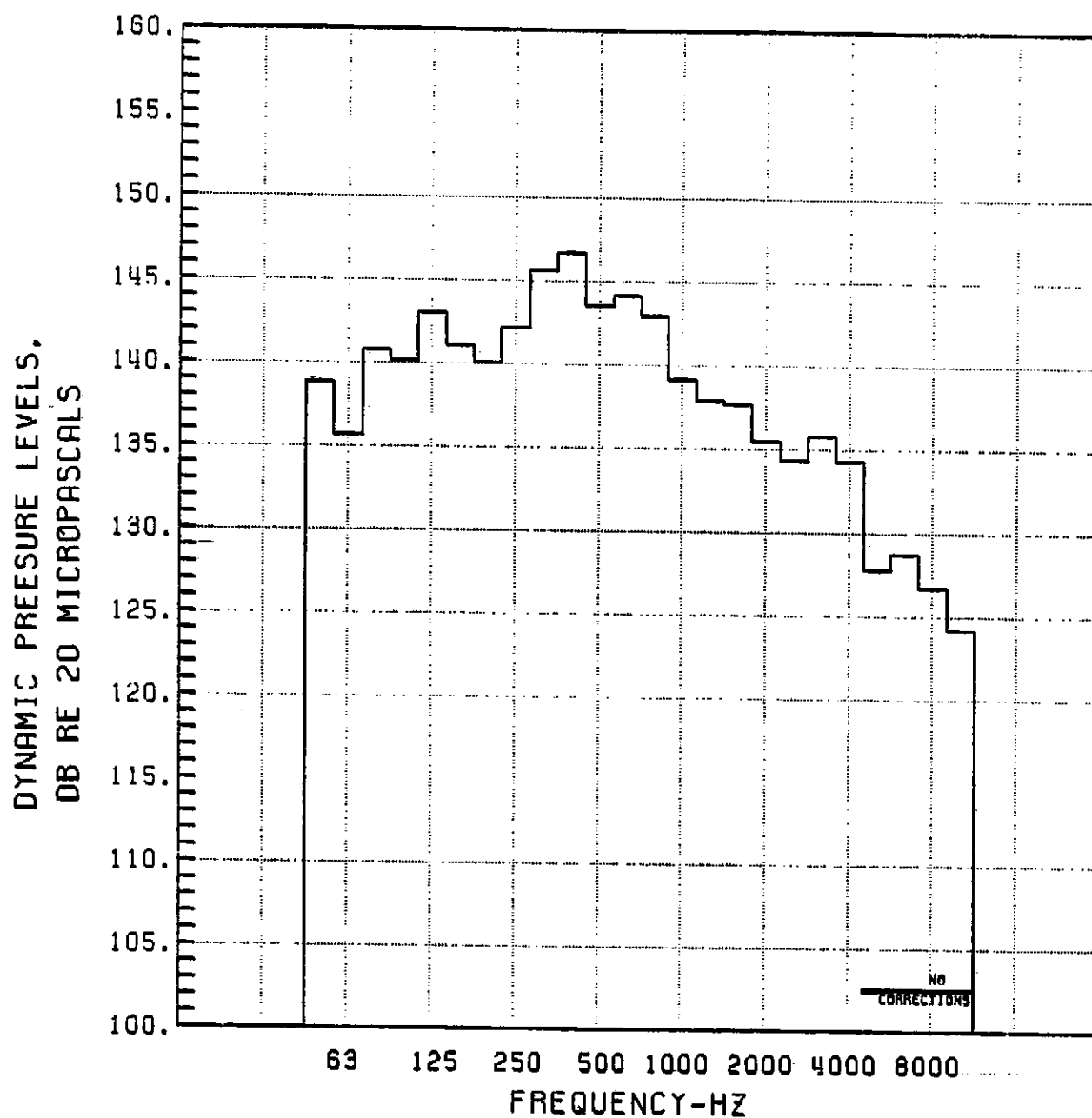
INLET PRESS=372.8 KPA(54.1 PSIA), COMB EXIT TEMP=867.1 DEG C(1592.7 DEG F)

AIR FLOW= 5.12 KG/SEC(11.28#/SEC), FUEL FLOW=328.3 KG/HR(723.7 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 4. GROUP NUMBER: II

RUN NUMBER: 137



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

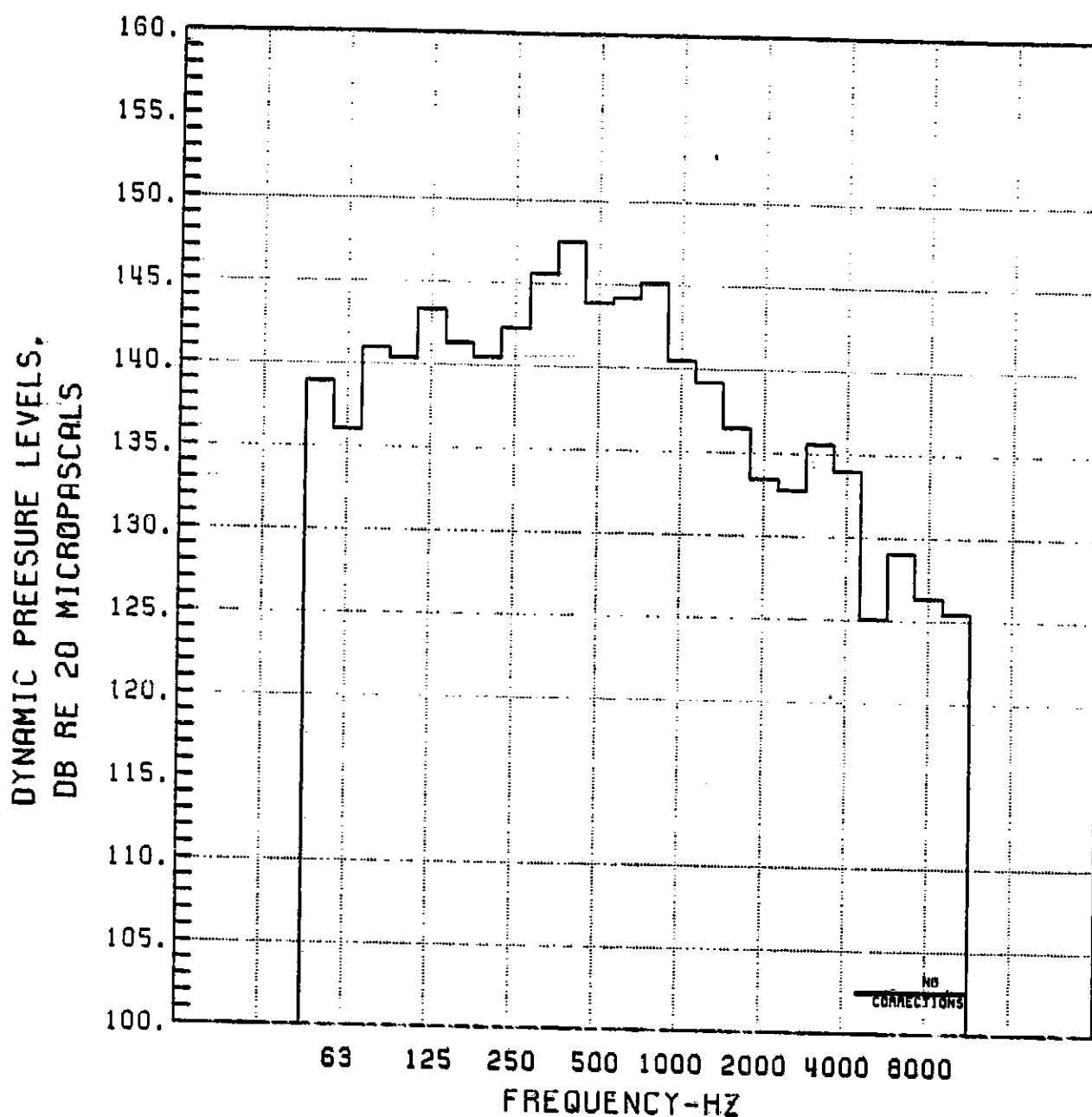
INLET PRESS=372.8 KPA(54.1 PSIA), COMB EXIT TEMP=867.1 DEG C(1592.7 DEG F)

AIR FLOW= 5.12 KG/SEC(11.28#/SEC), FUEL FLOW=328.3 KG/HR(723.7 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 5. GROUP NUMBER: II

RUN NUMBER: 137



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

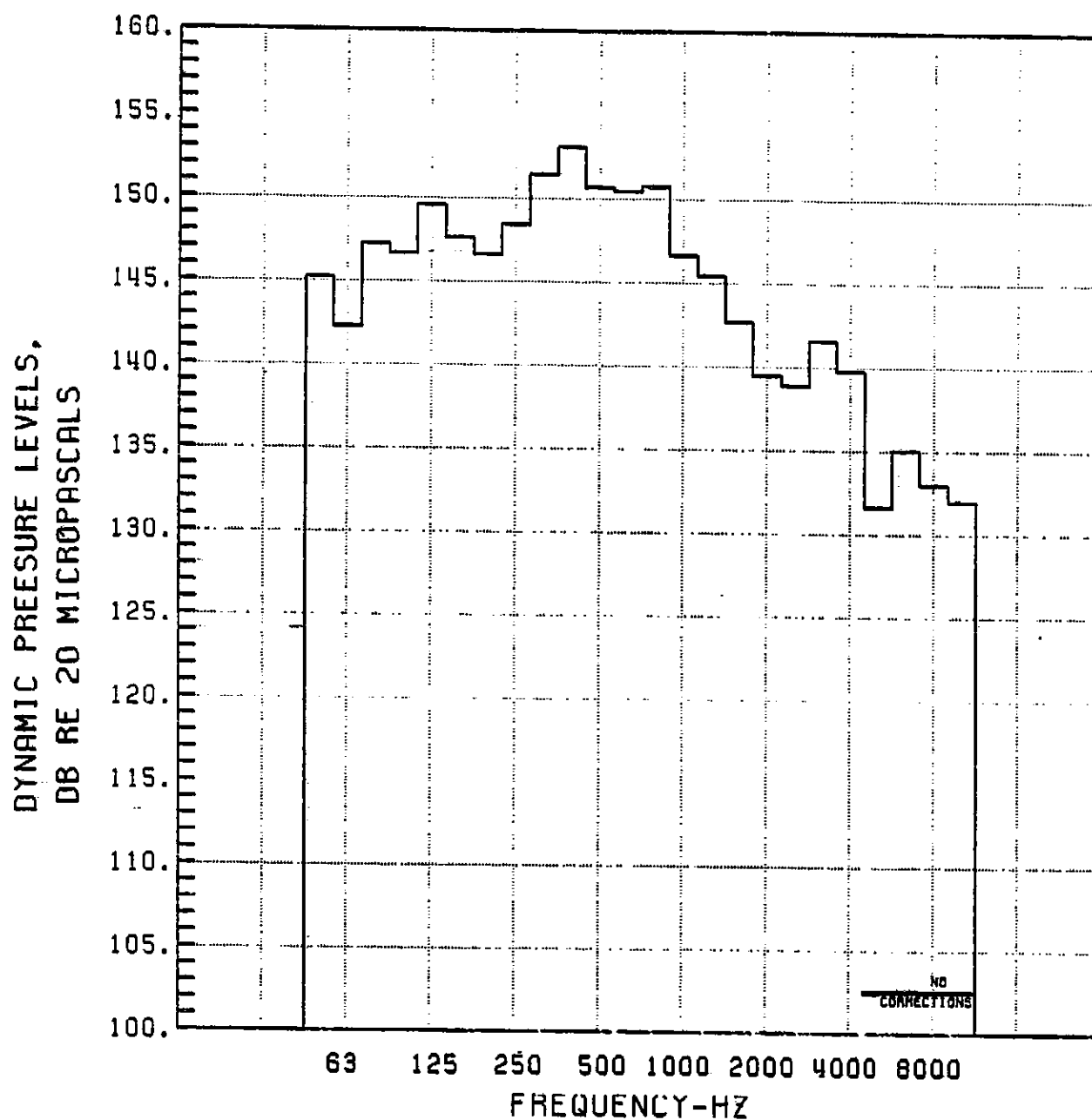
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=372.8 KPA(54.1 PSIA), COMB EXIT TEMP=867.1 DEG C(1592.7 DEG F)
AIR FLOW= 5.12 KG/SEC(11.28#/SEC), FUEL FLOW=328.3 KG/HR(723.7 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 6. GROUP NUMBER: 11

RUN NUMBER: 137



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

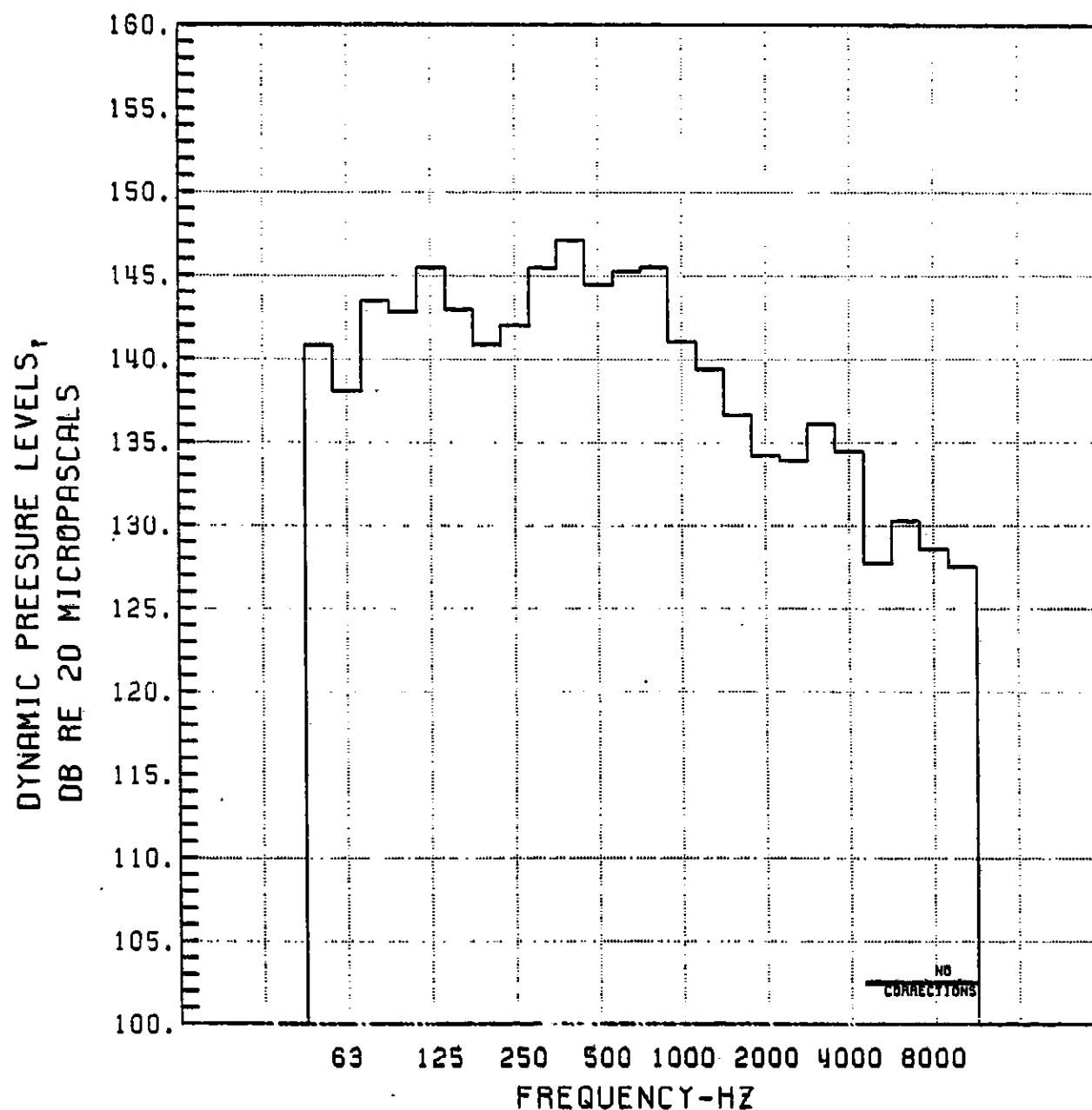
INLET PRESS=372.8 KPA(54.1 PSIA), COMB EXIT TEMP=867.1 DEG C(1592.7 DEG F)

AIR FLOW= 5.12 KG/SEC(11.28*/SEC), FUEL FLOW=328.3 KG/HR(723.7 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 7. GROUP NUMBER: II

RUN NUMBER: 137



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=372.8 KPA(54.1 PSIA), COMB EXIT TEMP=867.1 DEG C(1592.7 DEG F)

AIR FLOW= 5.12 KG/SEC(11.28#/SEC), FUEL FLOW=328.3 KG/HR(723.7 #/HR)

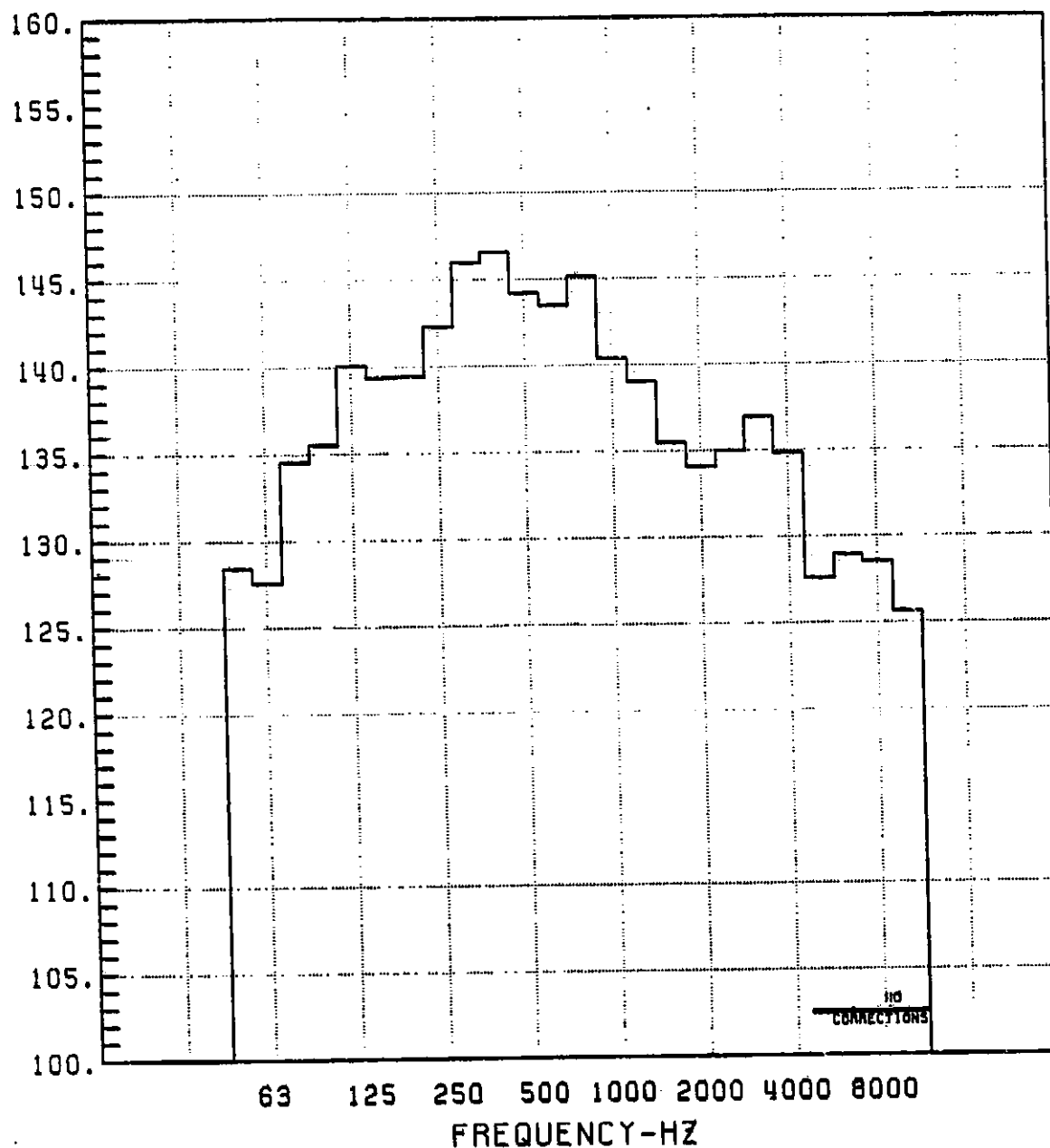
TEST DATE: FEB. 22, 1981

PROBE NUMBER: 8.

GROUP NUMBER: II

RUN NUMBER: 137

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=372.8 KPA(54.1 PSIA), COMB EXIT TEMP=867.1 DEG C(1592.7 DEG F)

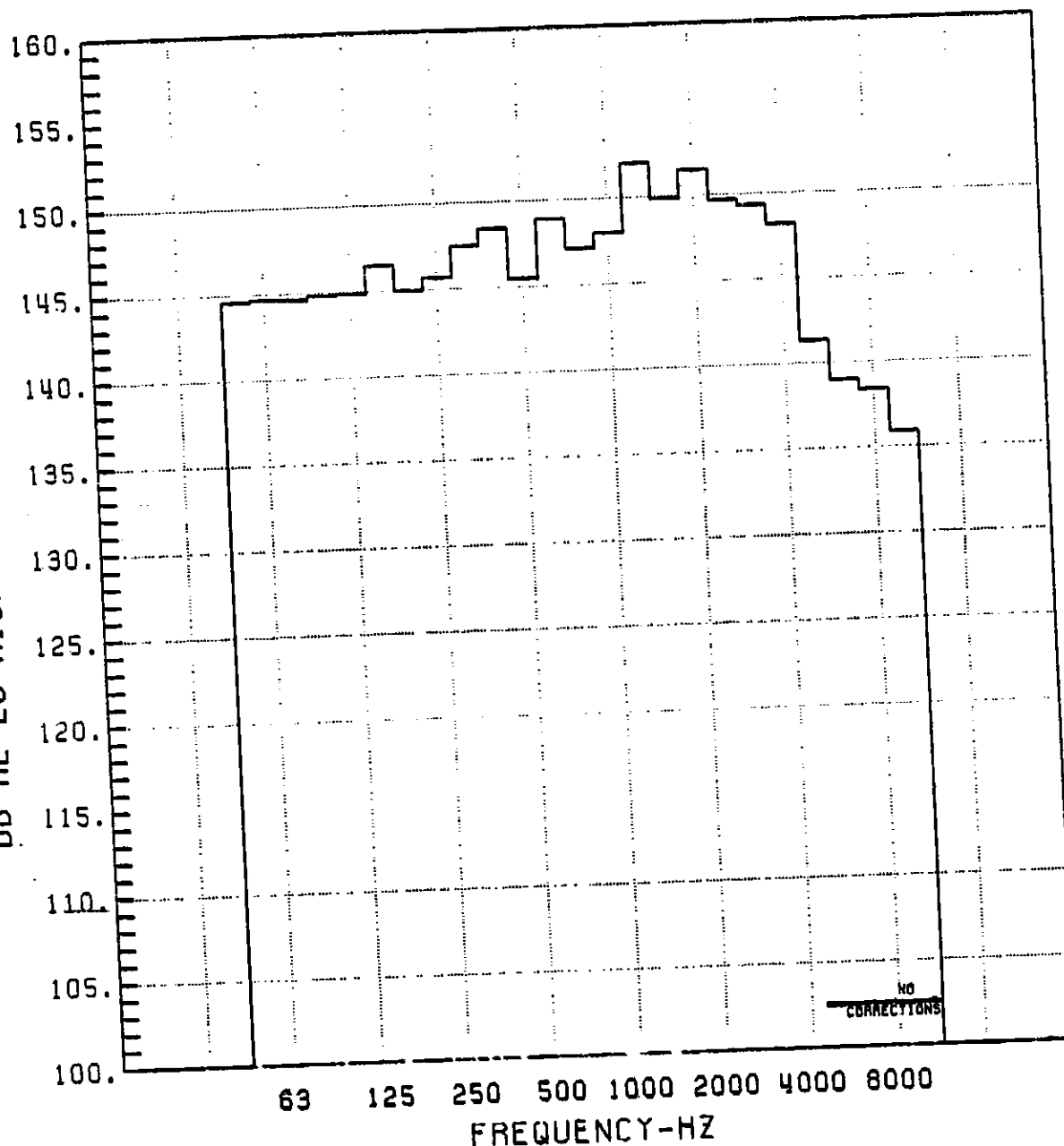
AIR FLOW= 5.12 KG/SEC(11.28#/SEC), FUEL FLOW=328.3 KG/HR(723.7 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 9. GROUP NUMBER: II

RUN NUMBER: 137

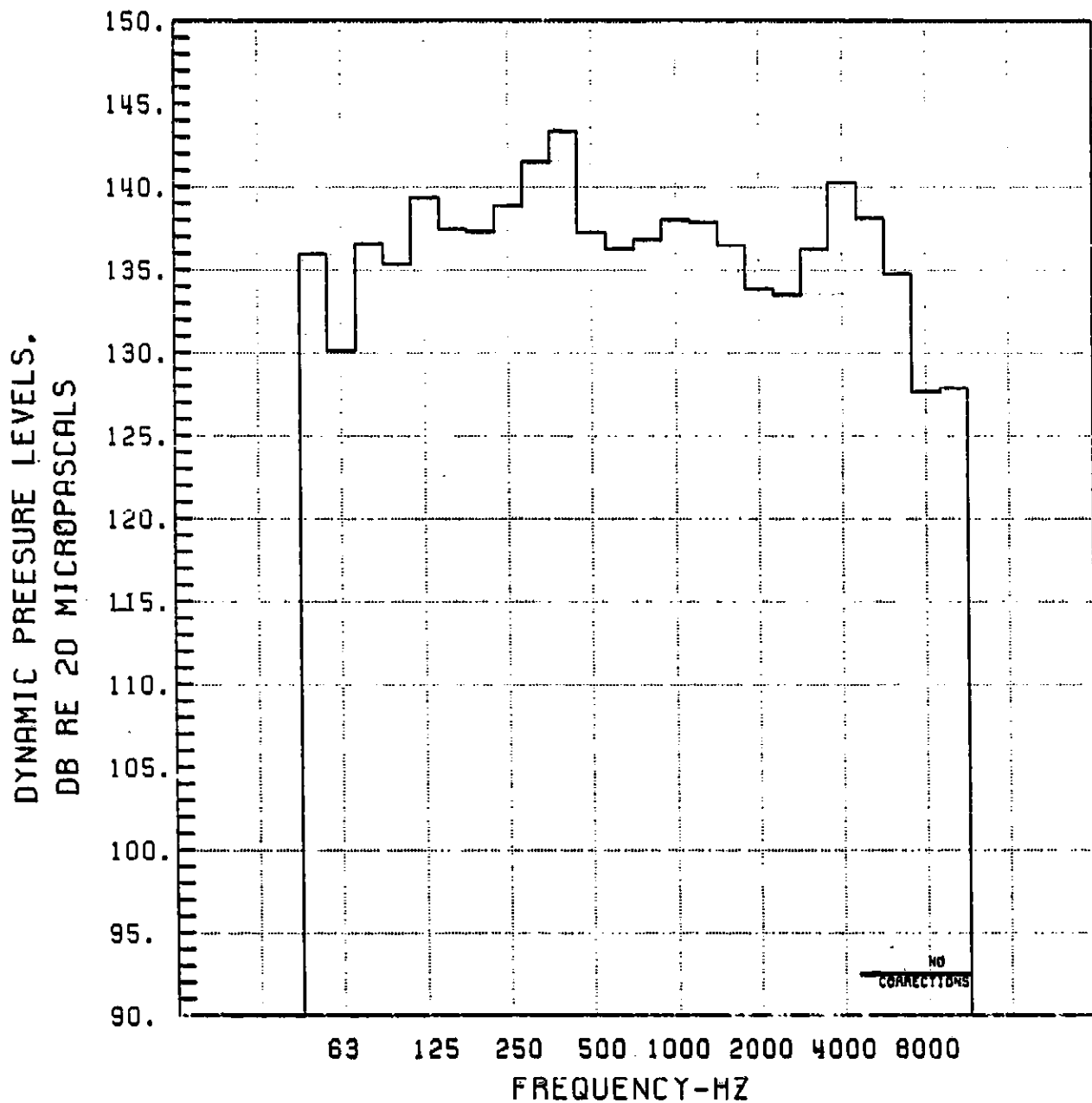
DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: F-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=372.8 KPA(54.1 PSIA), COMB EXIT TEMP=867.1 DEG C(1592.7 DEG F)
AIR FLOW= 5.12 KG/SEC(11.28*/SEC), FUEL FLOW=320.3 KG/HR(723.7 */HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 10. GROUP NUMBER: II RUN NUMBER: 137

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AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

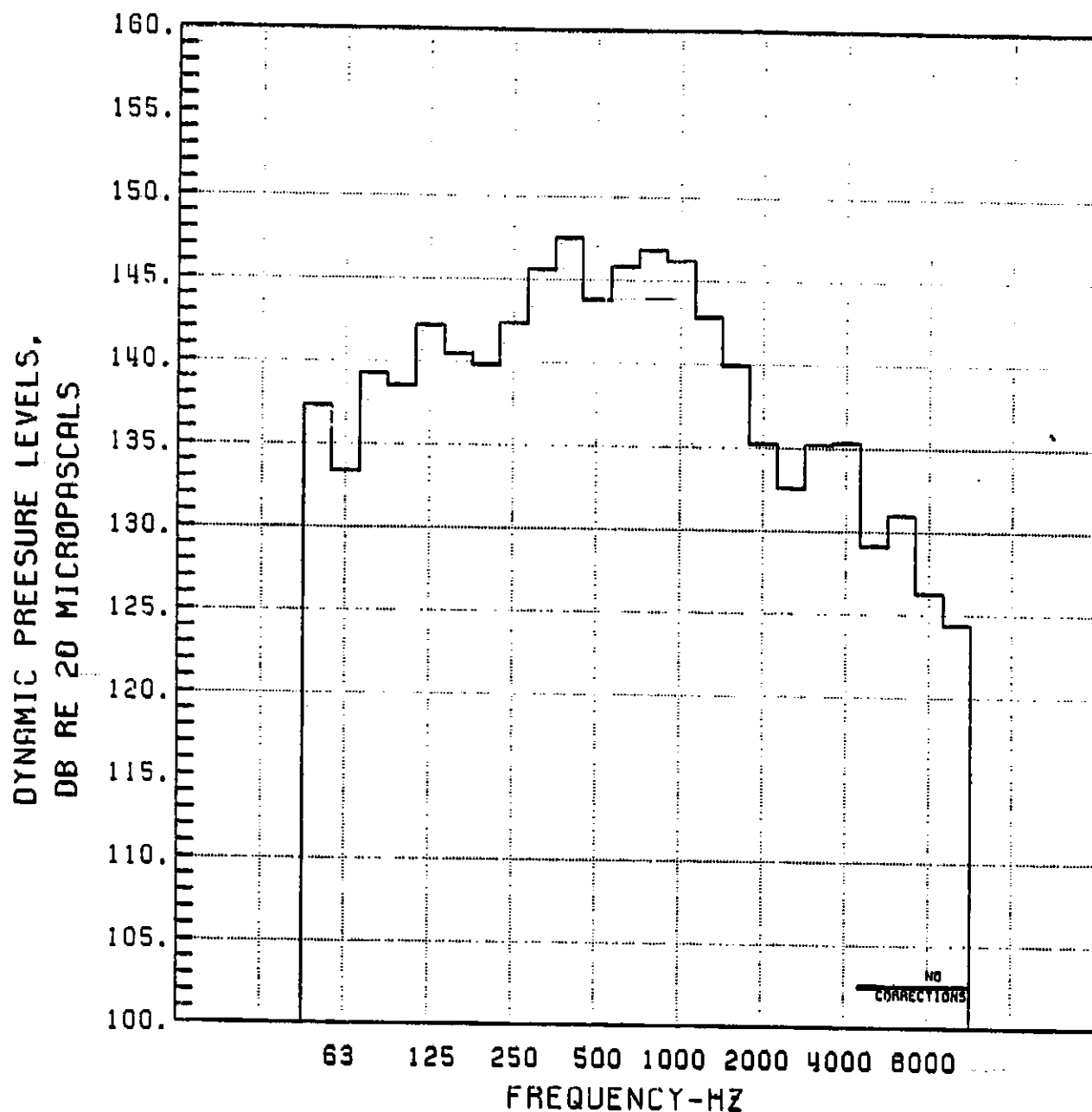
INLET PRESS=372.3 KPA(54.0 PSIA), COMB EXIT TEMP=869.8 DEG C(1597.7 DEG F)

AIR FLOW= 5.04 KG/SEC(11.11*/SEC), FUEL FLOW=341.8 KG/HR(753.5 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 1. GROUP NUMBER: II

RUN NUMBER: 113



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=372.3 KPA(54.0 PSIA), COMB EXIT TEMP=869.8 DEG C(1597.7 DEG F)

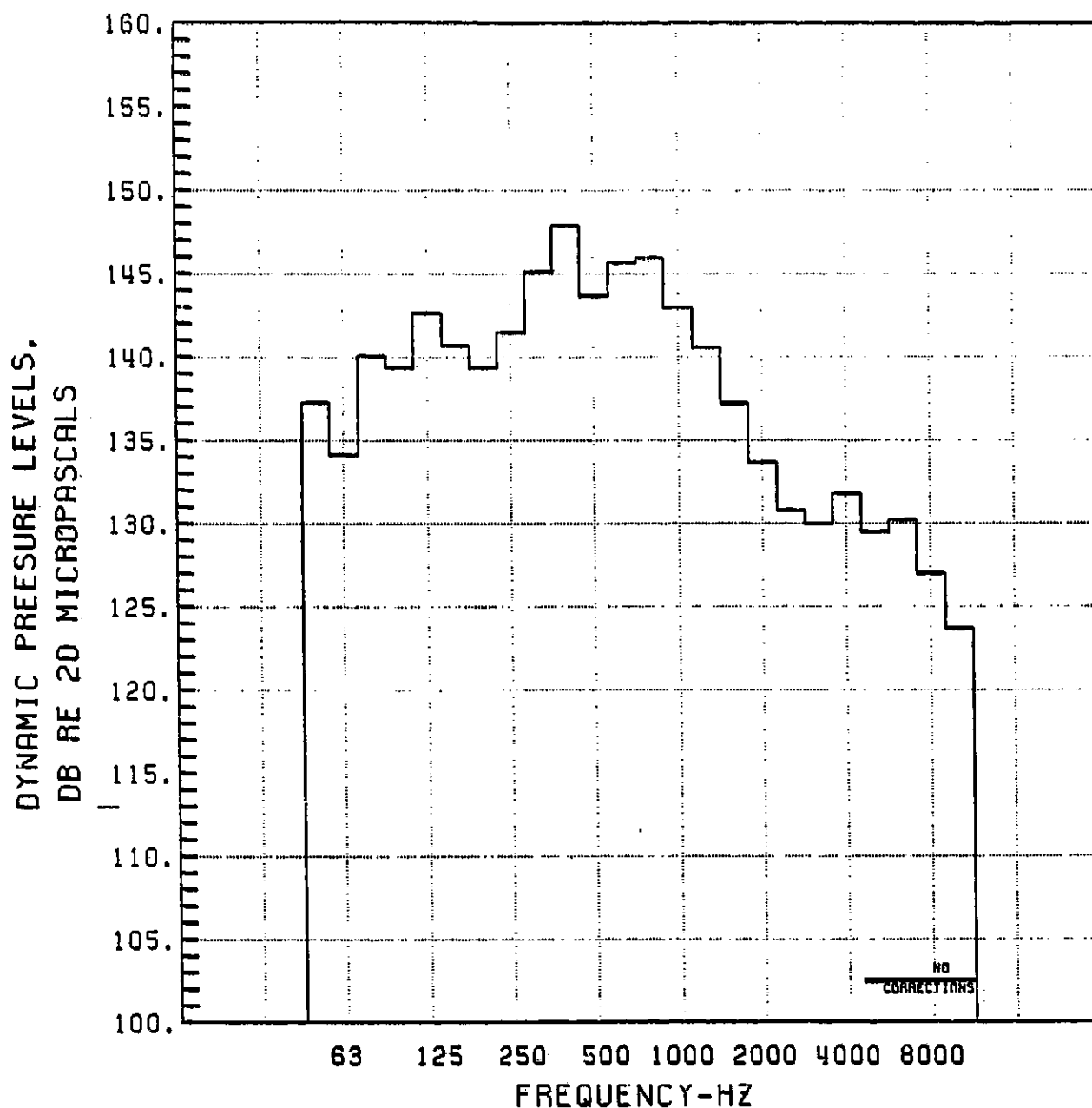
AIR FLOW= 5.04 KG/SEC(11.11*/SEC), FUEL FLOW=341.8 KG/HR(753.5 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 2.

GROUP NUMBER: II

RUN NUMBER: 113



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

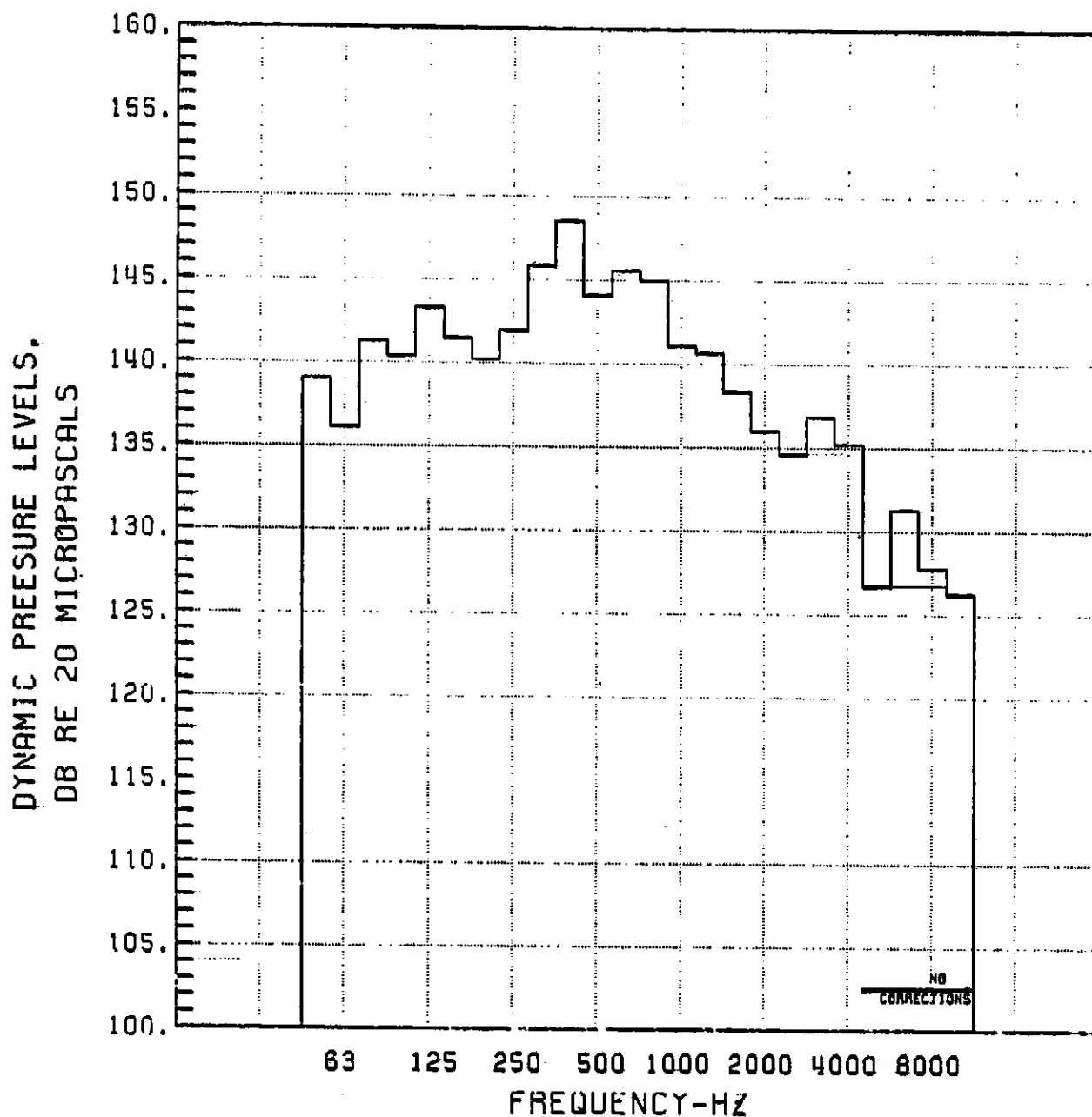
INLET PRESS=372.3 KPA(54.0 PSIA), COMB EXIT TEMP=869.8 DEG C(1597.7 DEG F)

AIR FLOW= 5.04 KG/SEC(11.11*/SEC), FUEL FLOW=341.8 KG/HR(753.5 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 3. GROUP NUMBER: II

RUN NUMBER: 113



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

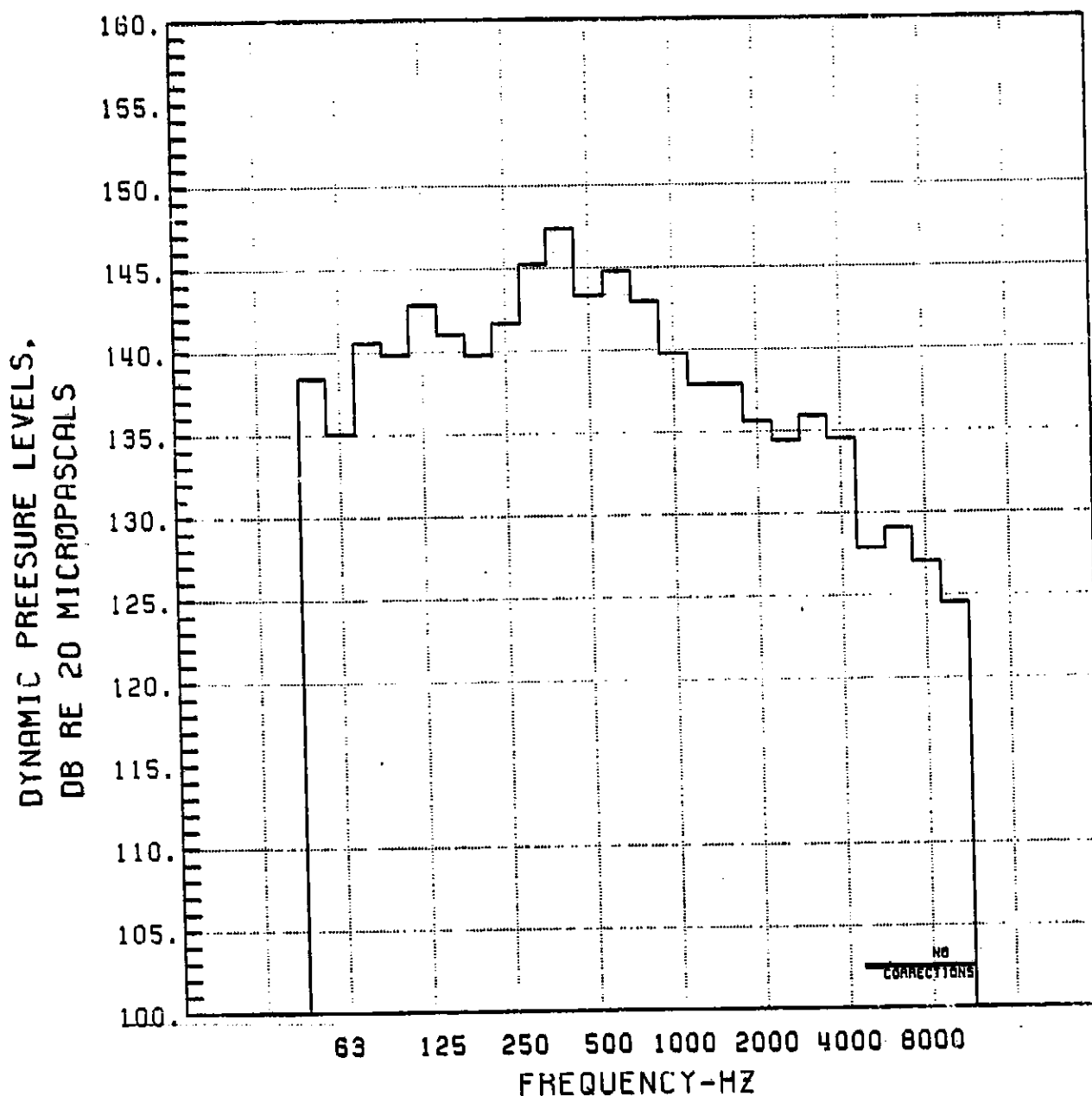
INLET PRESS=372.3 KPA(54.0 PSIA), COMB EXIT TEMP=869.8 DEG C(1597.7 DEG F)

AIR FLOW= 5.04 KG/SEC(11.11*/SEC), FUEL FLOW=341.8 KG/HR(753.5 */HR)

TEST DATE: FEB. 22, 1981

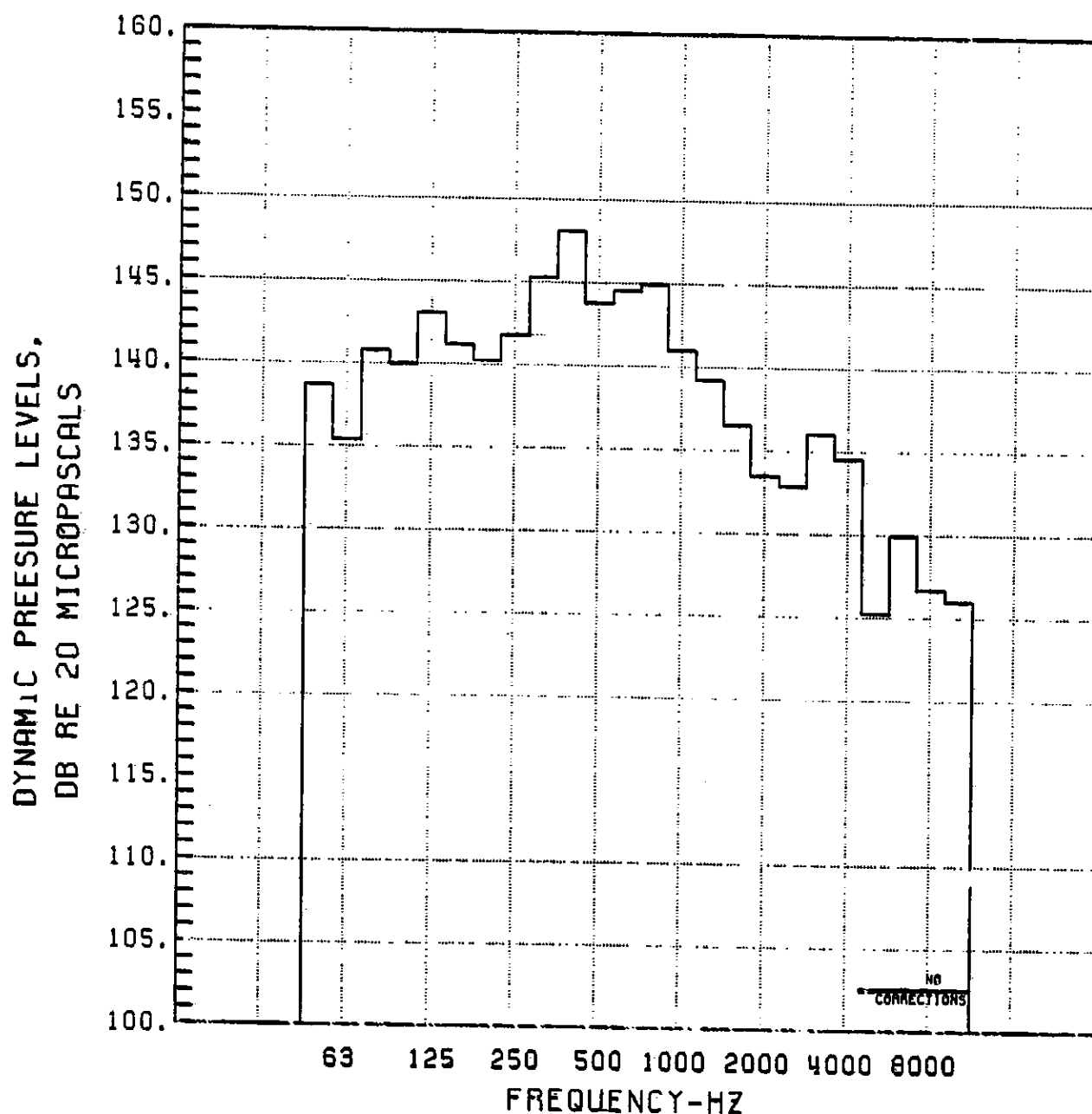
PROBE NUMBER: 4. GROUP NUMBER: II

RUN NUMBER: 113



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=372.3 KPA(54.0 PSIA), COMB EXIT TEMP=869.8 DEG C(1597.7 DEG F)
AIR FLOW= 5.04 KG/SEC(11.11 #/SEC), FUEL FLOW=341.8 KG/HR(753.5 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 5. GROUP NUMBER: 11 RUN NUMBER: 113



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=372.3 KPA(54.0 PSIA), COMB EXIT TEMP=869.8 DEG C(1597.7 DEG F)

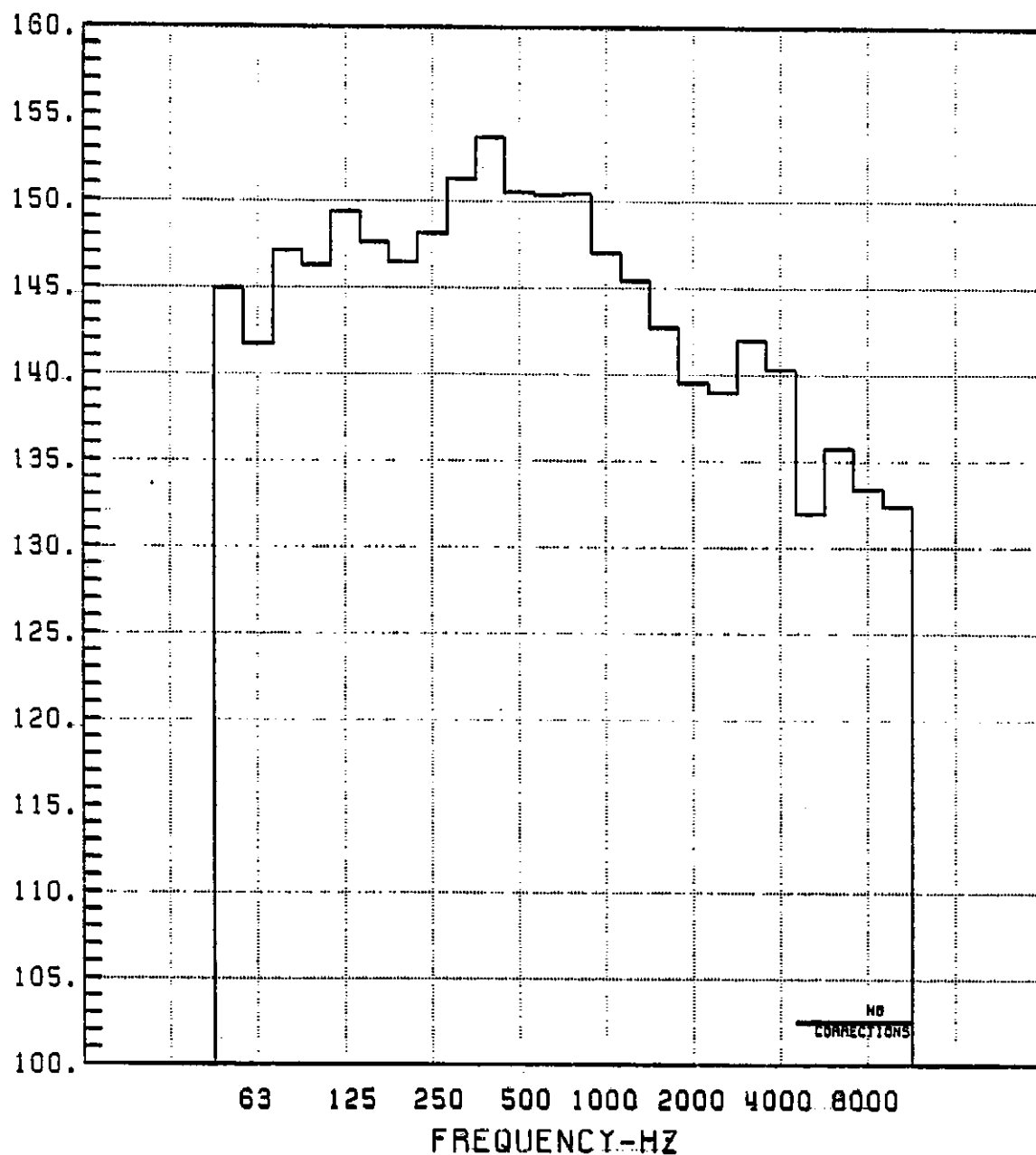
AIR FLOW= 5.04 KG/SEC(11.11#/SEC), FUEL FLOW=341.8 KG/HR(753.5 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 6. GROUP NUMBER: 11

RUN NUMBER: 113

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=372.3 KPA(54.0 PSIA), COMB EXIT TEMP=869.8 DEG C(1597.7 DEG F)

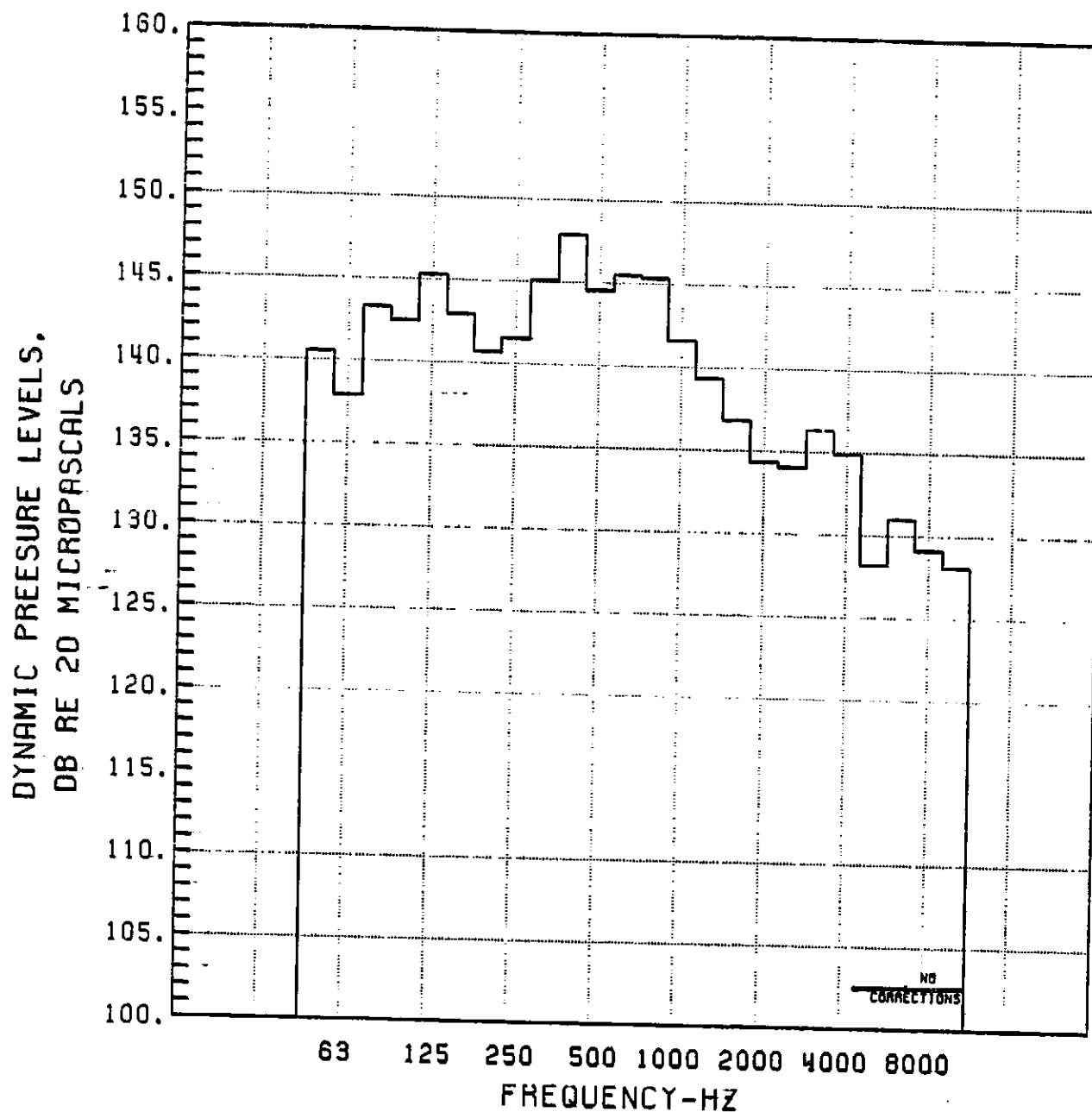
AIR FLOW= 5.04 KG/SEC(11.11#/SEC), FUEL FLOW=341.8 KG/HR(753.5 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 7.

GROUP NUMBER: II

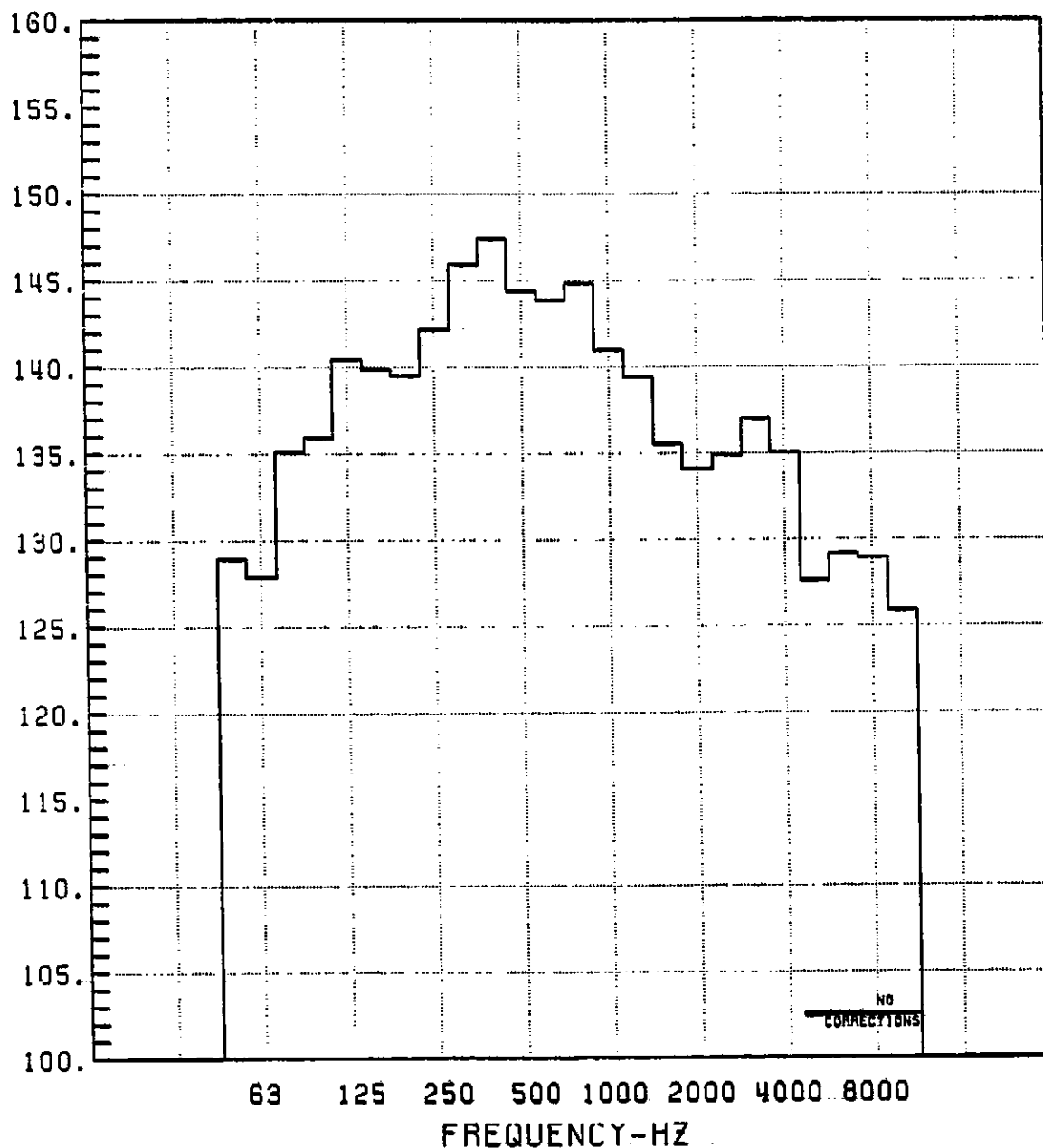
RUN NUMBER: 113



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=372.3 KPA(54.0 PSIA), COMB EXIT TEMP=869.8 DEG C(1597.7 DEG F)
AIR FLOW= 5.04 KG/SEC(11.11#/SEC), FUEL FLOW=341.8 KG/HR(753.5 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 8. GROUP NUMBER: II RUN NUMBER: 113

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

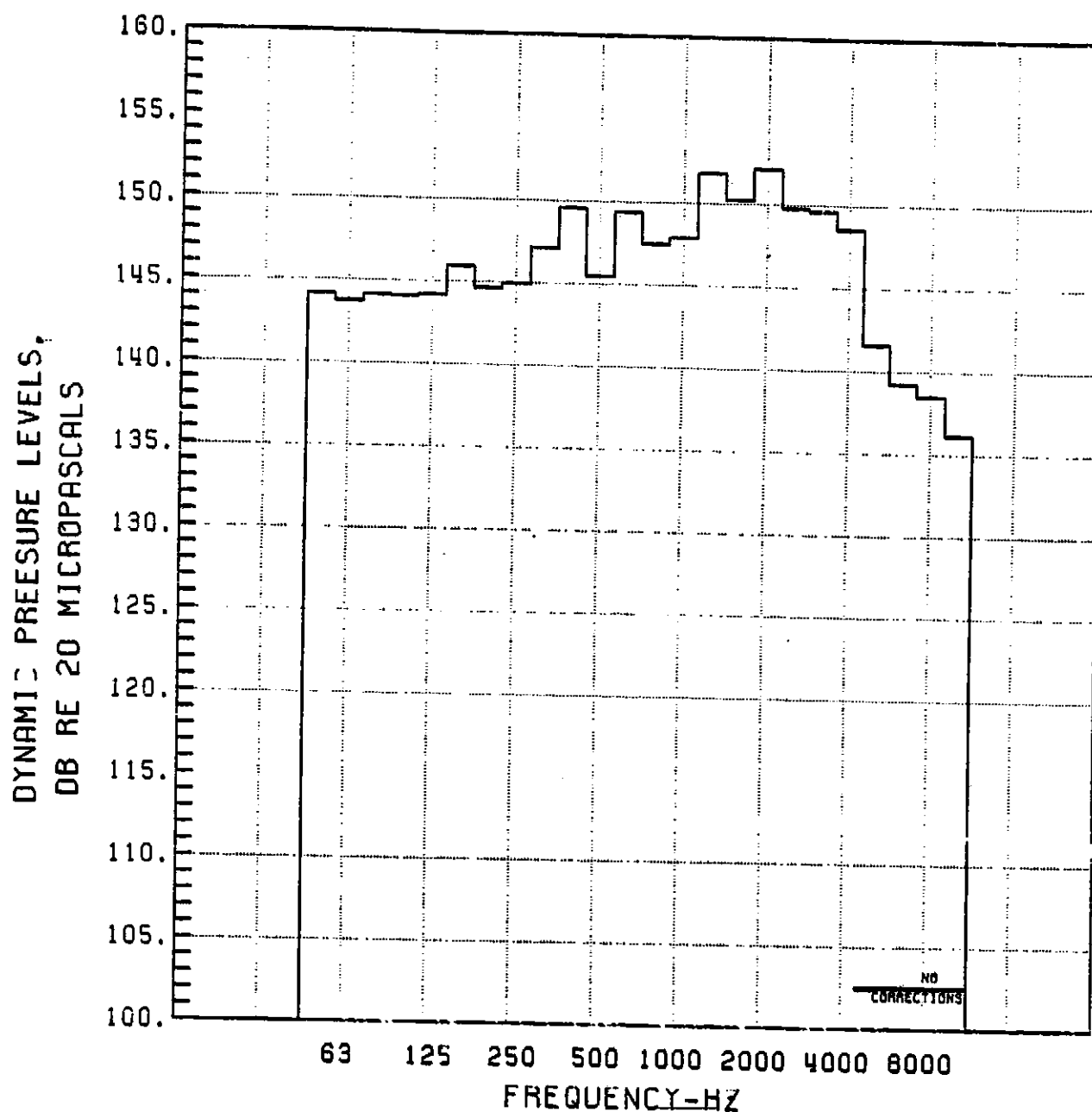
INLET PRESS=372.3 KPA(54.0 PSIA), COMB EXIT TEMP=869.8 DEG C(1597.7 DEG F)

AIR FLOW= 5.04 KG/SEC(11.11#/SEC), FUEL FLOW=341.8 KG/HR(753.5 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 9. GROUP NUMBER: 11

RUN NUMBER: 113



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 OFF-DESIGN FUEL-TO-AIR RATIO VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=372.3 KPA(54.0 PSIA), COMB EXIT TEMP=869.8 DEG C(1597.7 DEG F)

AIR FLOW= 5.04 KG/SEC(11.11#/SEC), FUEL FLOW=341.8 KG/HR(753.5 #/HR)

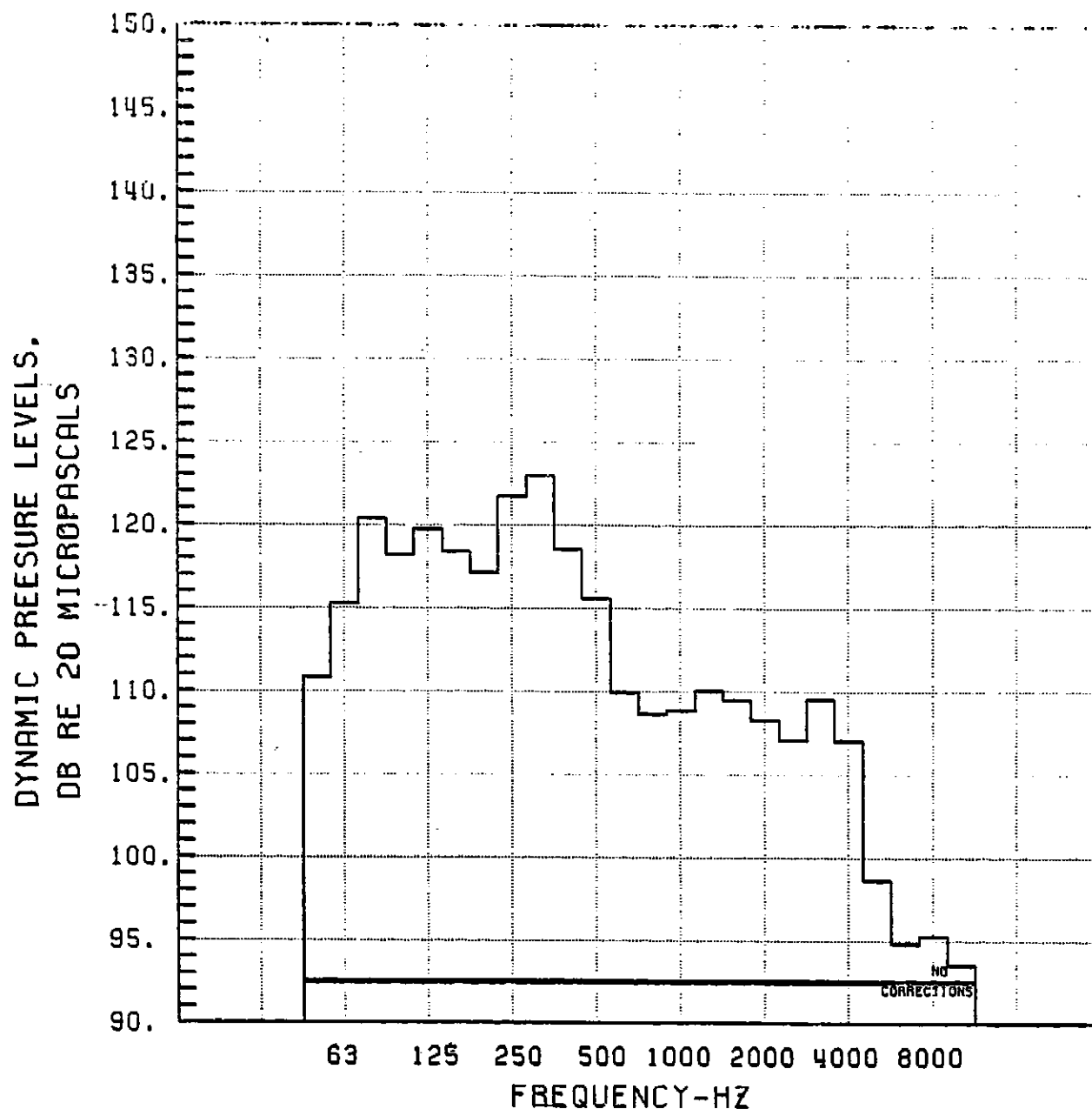
TEST DATE: FEB. 22, 1981

PROBE NUMBER: 10. GROUP NUMBER: 11

RUN NUMBER: 113

APPENDIX B

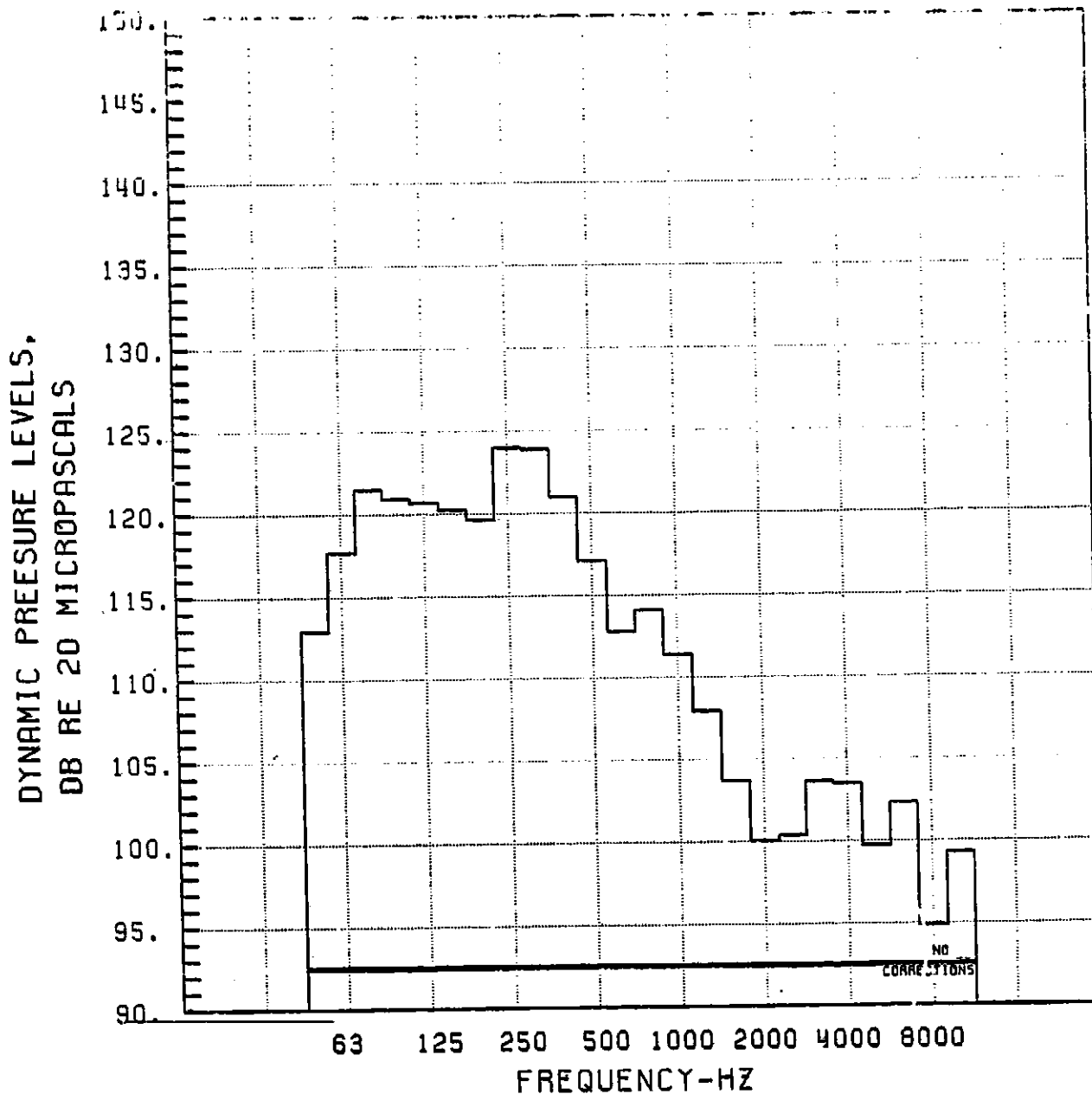
GROUP III



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 LOW PRESSURE HEAT RELEASE VARIATIONS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=110.8 KPA(16.1 PSIA), COMB EXIT TEMP=792.5 DEG C(1458.6 DEG F)
AIR FLOW= 0.84 KG/SEC(1.85 #/SEC), FUEL FLOW= 57.4 KG/HR(126.5 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 1. GROUP NUMBER: III RUN NUMBER: 131

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AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 LOW PRESSURE HEAT RELEASE VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=110.8 KPA(16.1 PSIA), COMB EXIT TEMP=792.5 DEG C(1458.6 DEG F)

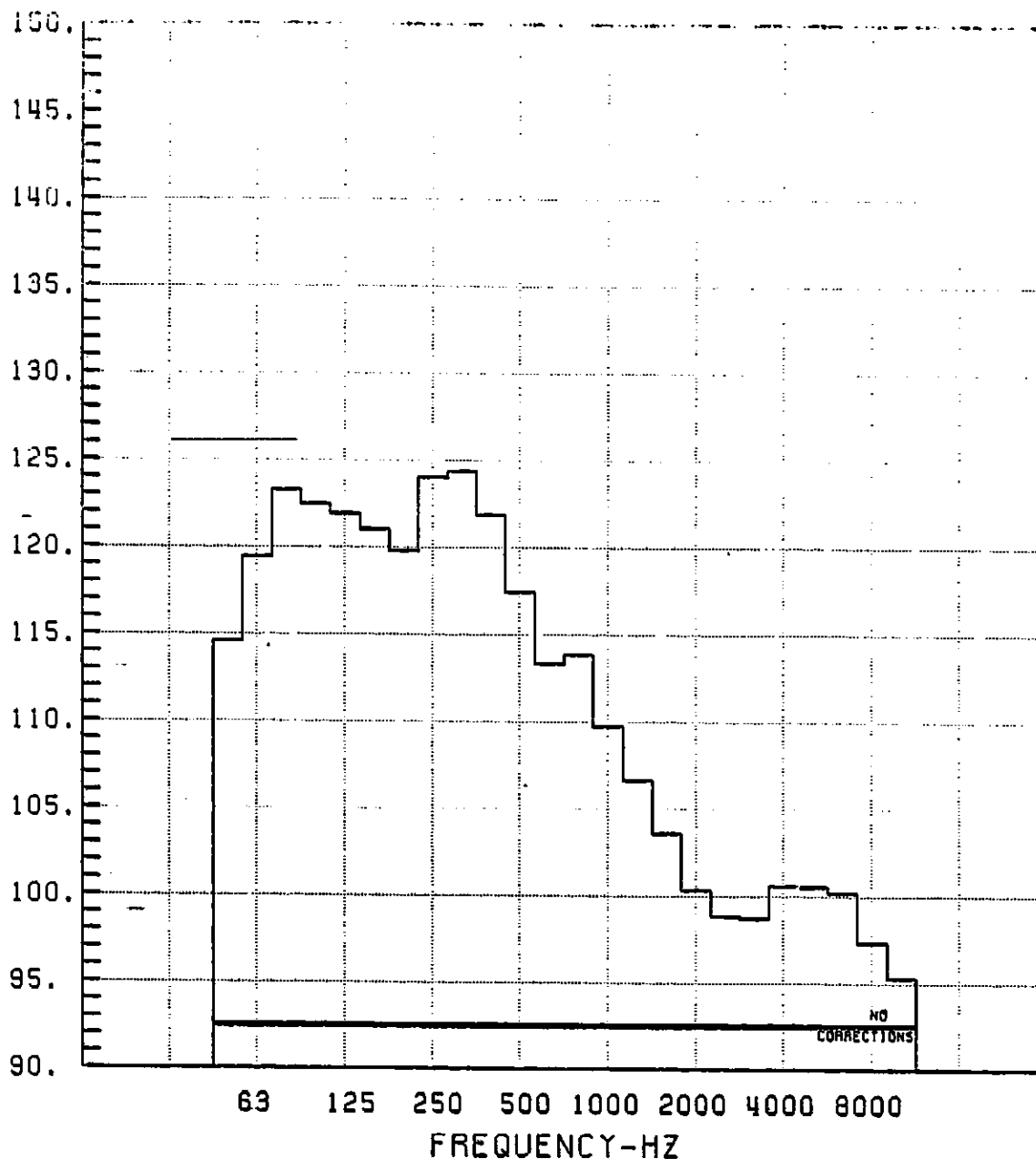
AIR FLOW= 0.84 KG/SEC(1.85 */SEC), FUEL FLOW= 57.4 KG/HR(126.5 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 2. GROUP NUMBER: III

RUN NUMBER: 131

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: CF-102 LOW PRESSURE HEAT RELEASE VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=110.8 KPA(16.1 PSIA), COMB EXIT TEMP=792.5 DEG C(1458.6 DEG F)

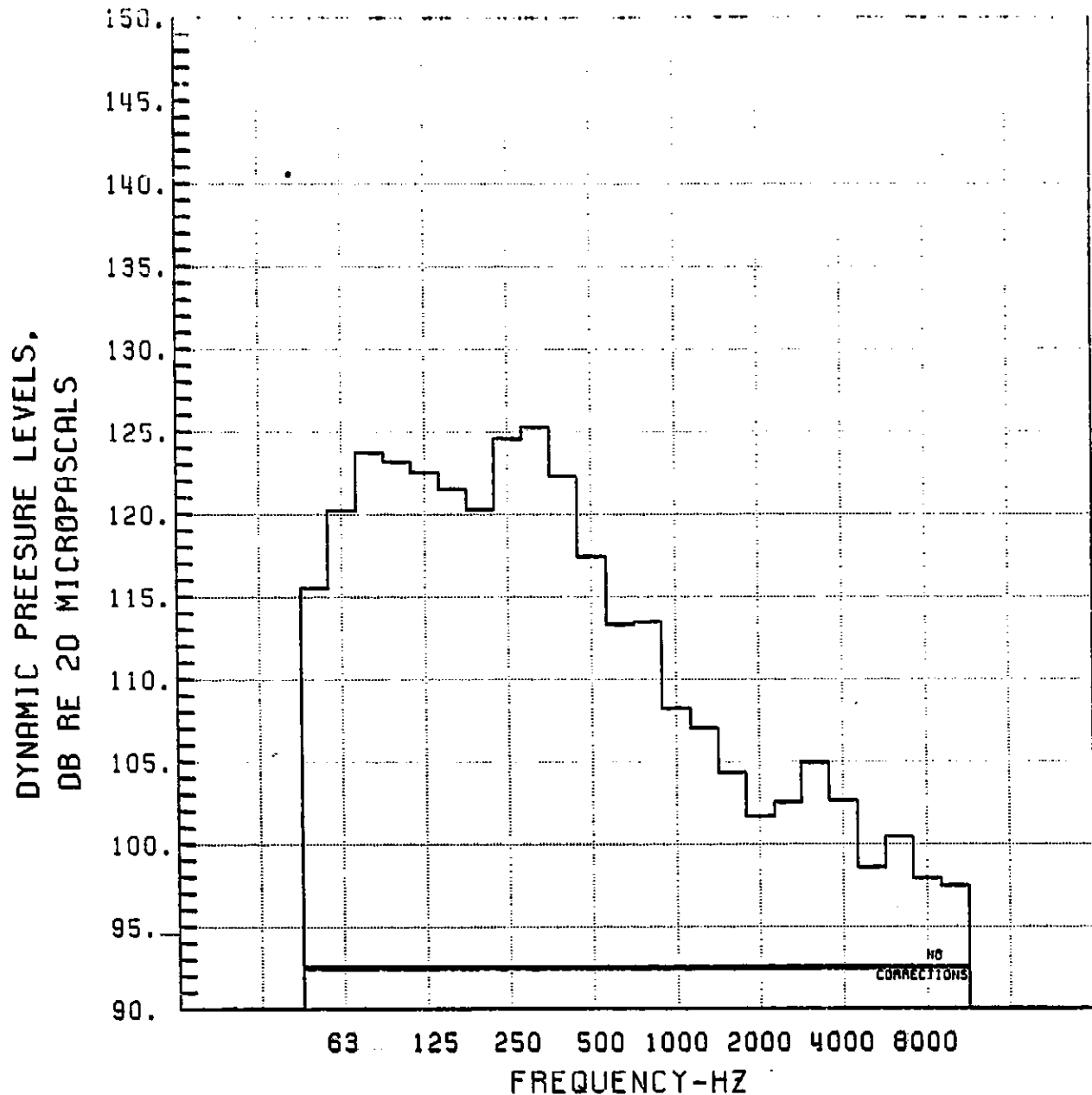
AIR FLOW= 0.84 KG/SEC(1.85 #/SEC), FUEL FLOW= 57.4 KG/HRI 125.5 #/HRI

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 3. GROUP NUMBER: III

RUN NUMBER: 131

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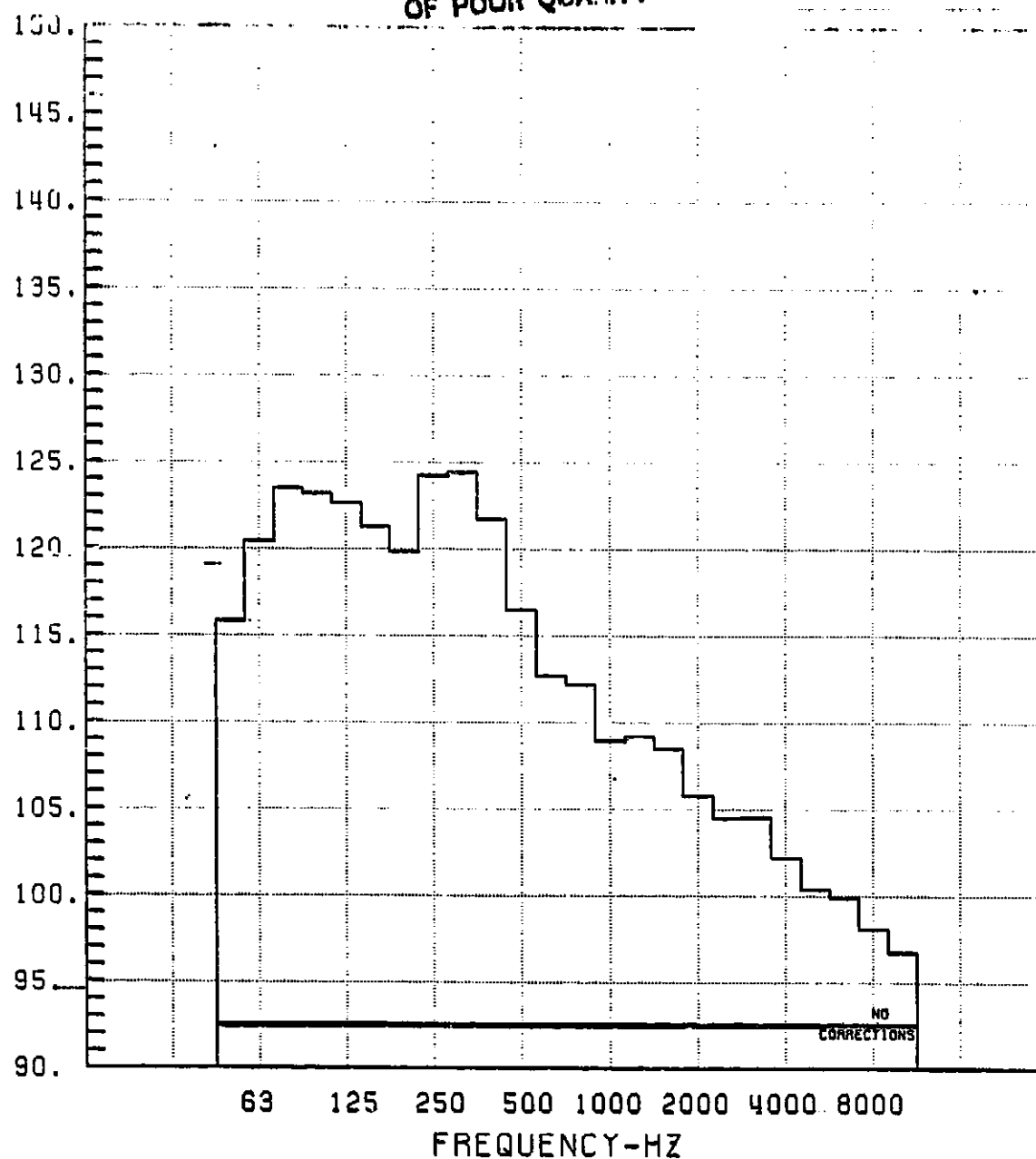


AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: TF-102 LOW PRESSURE HEAT RELEASE VARIATIONS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=110.8 KPA(16.1 PSIA), COMB EXIT TEMP=792.5 DEG C(1458.6 DEG F)
AIR FLOW= 0.84 KG/SEC(1.85 #/SEC), FUEL FLOW= 57.4 KG/HR(126.5 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 4. GROUP NUMBER: III RUN NUMBER: 131

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DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 LOW PRESSURE HEAT RELEASE VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=110.8 KPA(16.1 PSIA), COMB EXIT TEMP=792.5 DEG C(1458.6 DEG F)

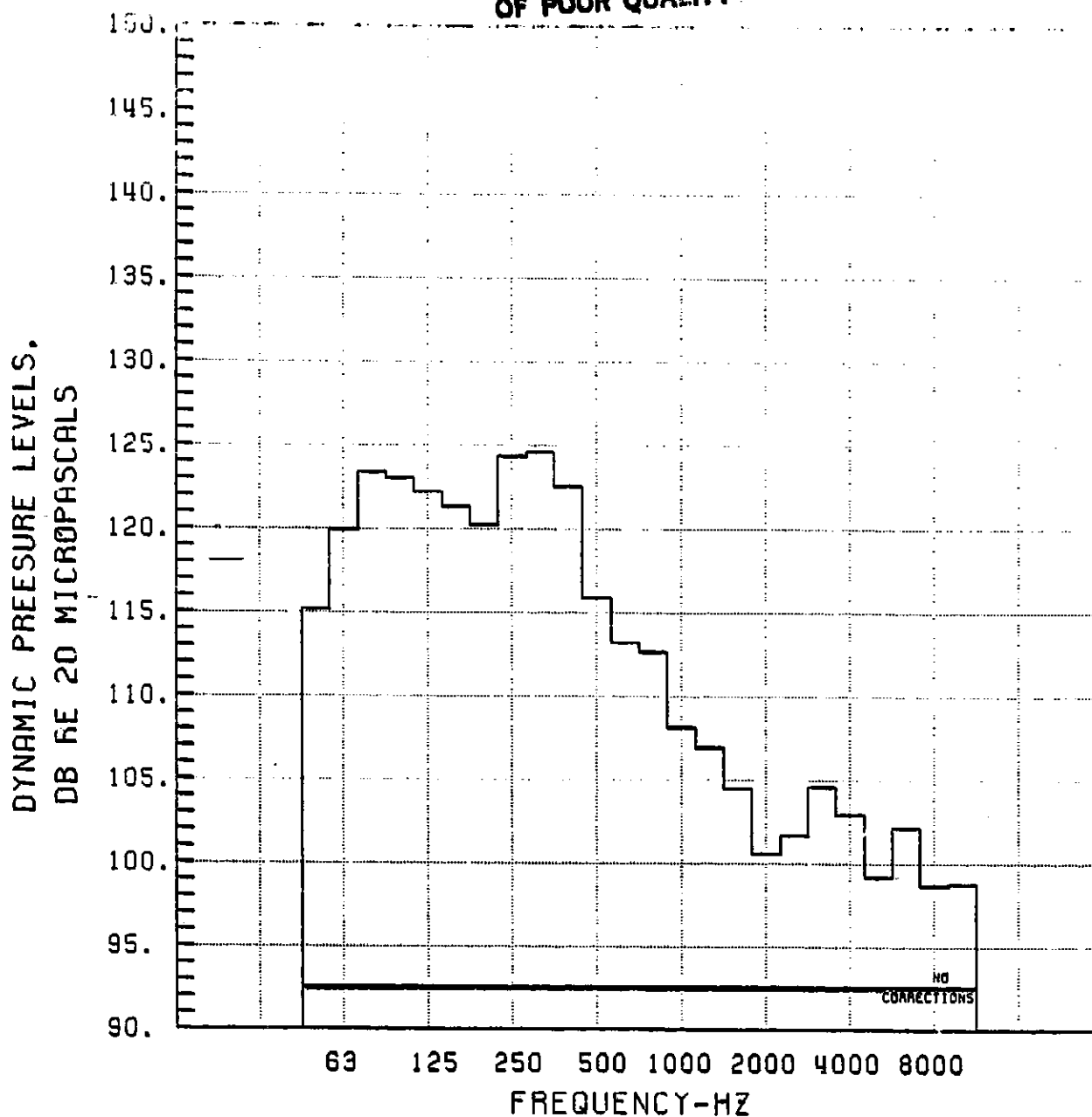
AIR FLOW= 0.84 KG/SEC(1.85 #/SEC), FUEL FLOW= 57.4 KG/HR(126.5 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 5. GROUP NUMBER: III

RUN NUMBER: 131

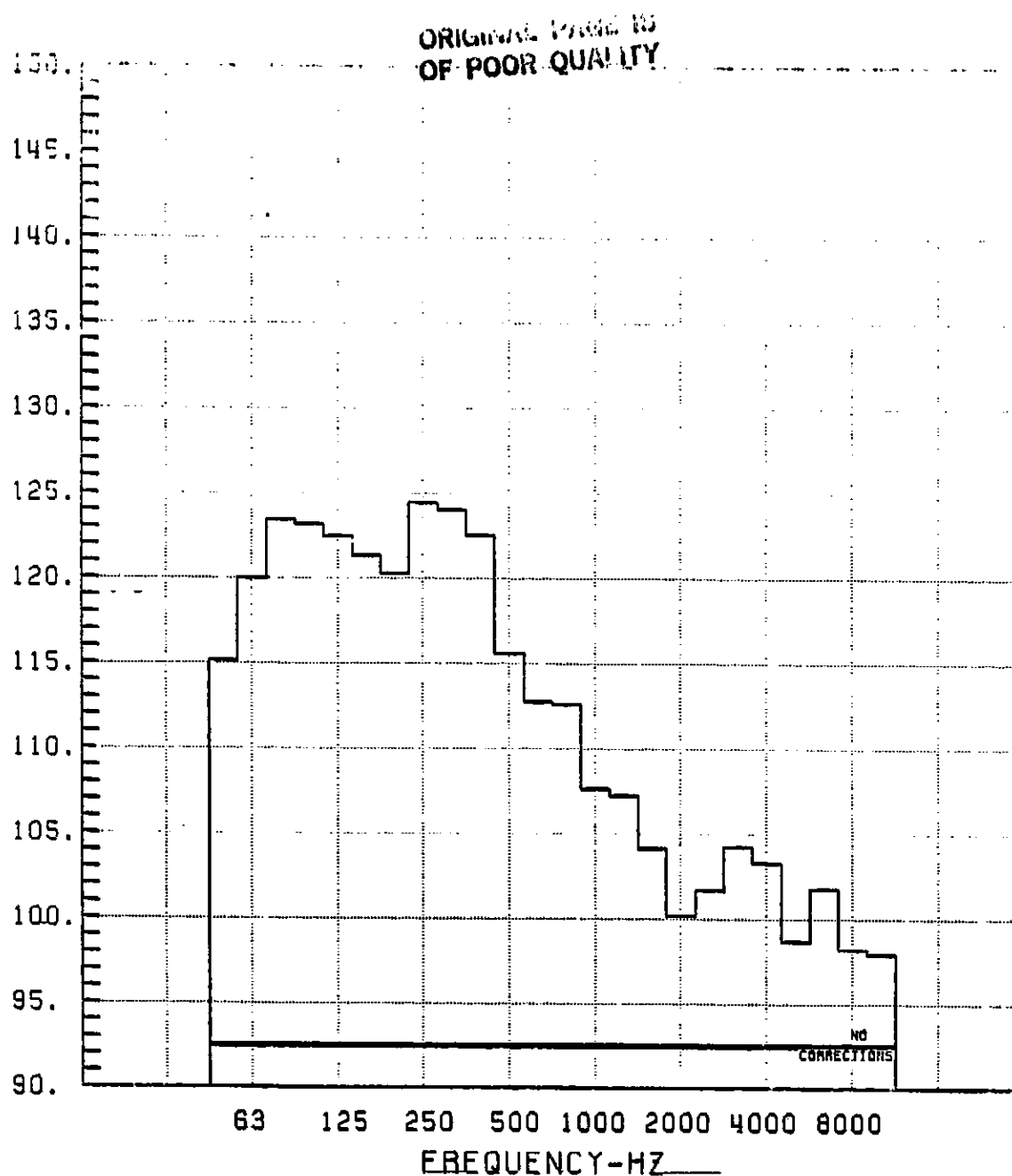
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AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 LOW PRESSURE HEAT RELEASE VARIATIONS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=110.8 KPA(16.1 PSIA), COMB EXIT TEMP=792.5 DEG C(1458.6 DEG F)
AIR FLOW= 0.34 KG/SEC(1.85 #/SEC), FUEL FLOW= 57.4 KG/HR(126.5 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 6. GROUP NUMBER: III RUN NUMBER: 131

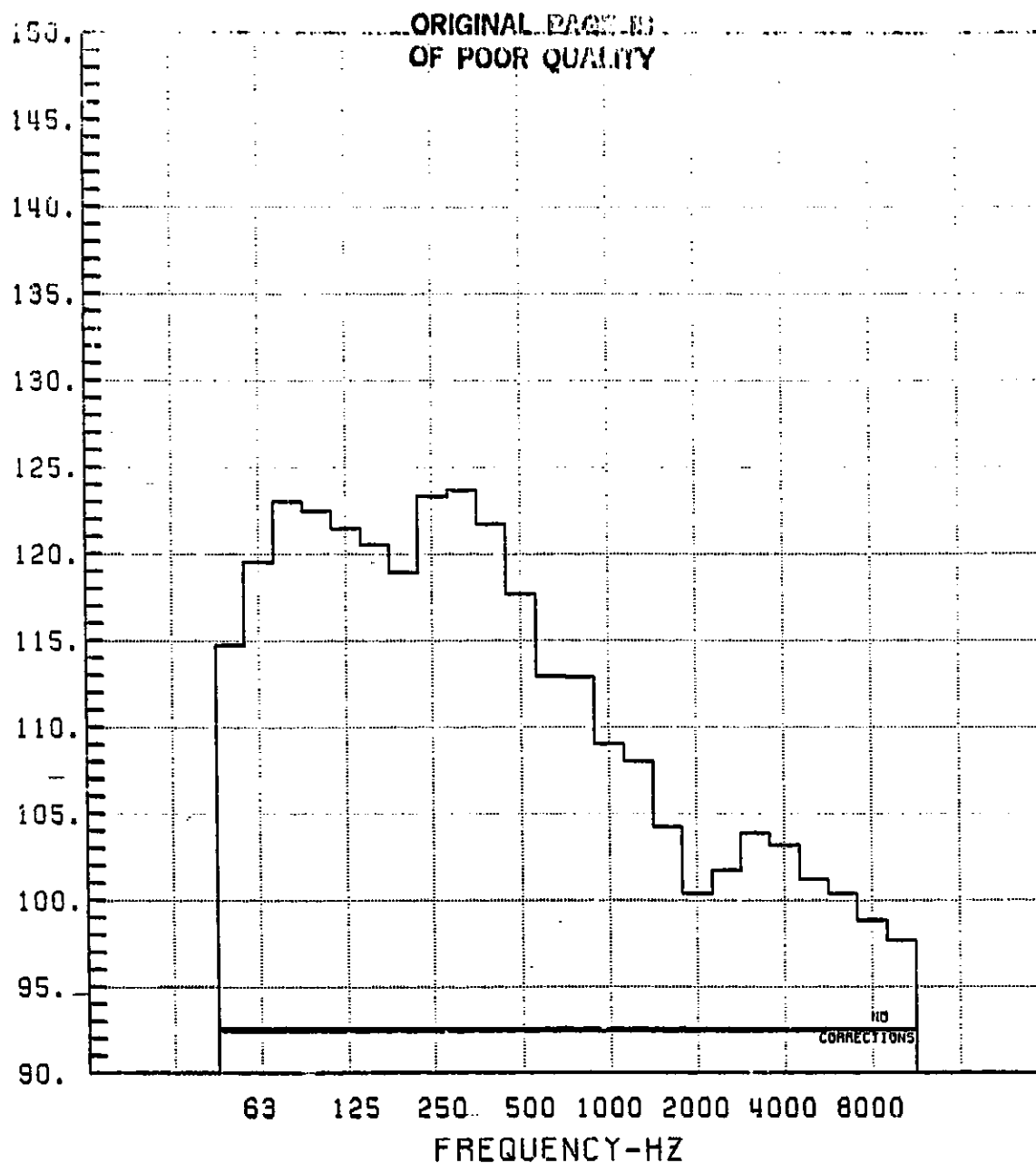
DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

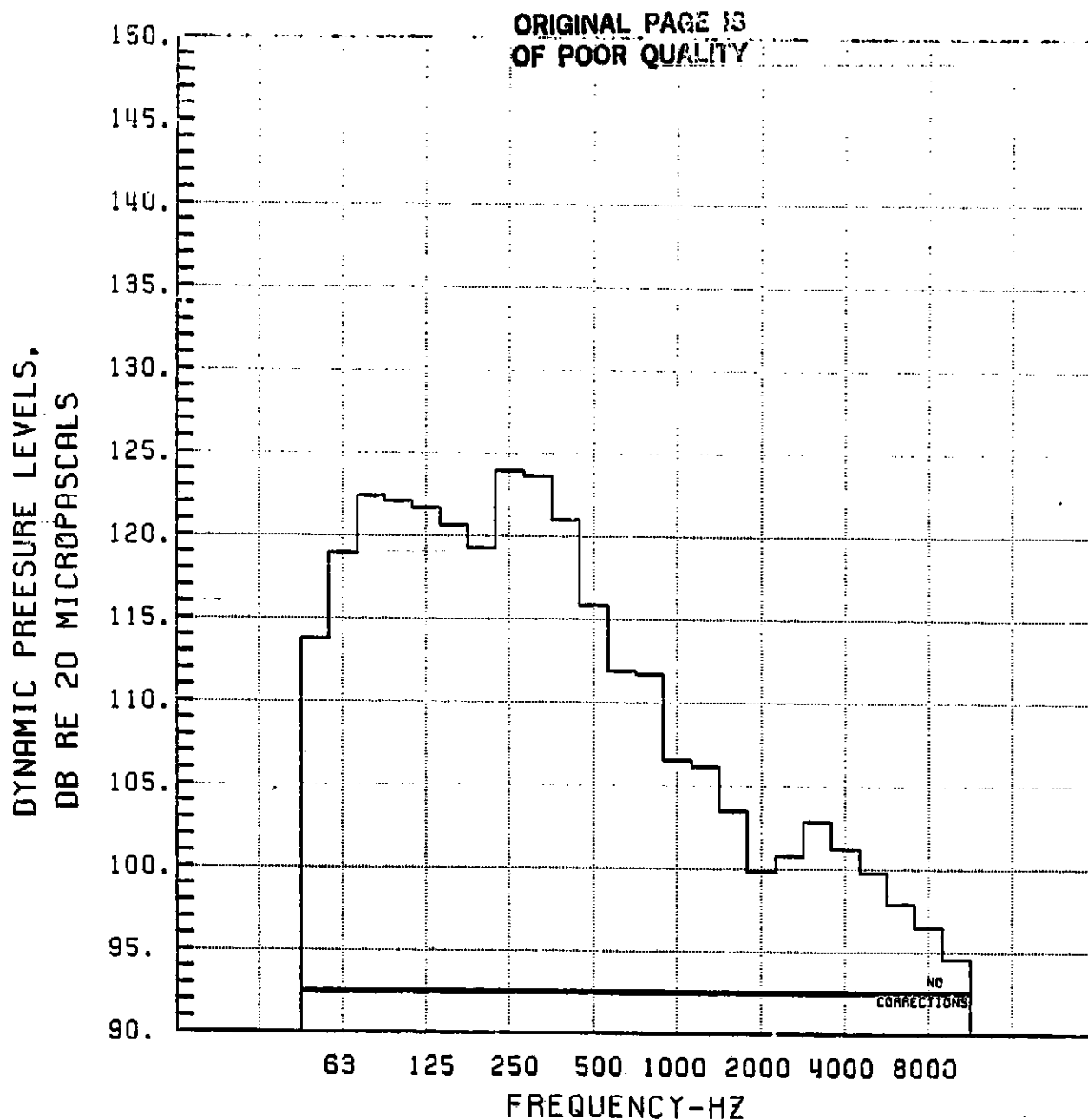
TITLE: YF-102 LOW PRESSURE HEAT RELEASE VARIATIONS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=110.8 KPA(16.1 PSIA), COMB EXIT TEMP=792.5 DEG C(1458.6 DEG F)
AIR FLOW= 0.84 KG/SEC(1.85 #/SEC), FUEL FLOW= 57.4 KG/HR(126.5 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 7. GROUP NUMBER: III RUN NUMBER: 131

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 LOW PRESSURE HEAT RELEASE VARIATIONS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=110.8 KPA(16.1 PSIA), COMB EXIT TEMP=792.5 DEG C(1458.6 DEG F)
AIR FLOW= 0.84 KG/SEC(1.85 #/SEC), FUEL FLOW= 57.4 KG/HR(126.5 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 8. GROUP NUMBER: III RUN NUMBER: 131



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: TF-102 LOW PRESSURE HEAT RELEASE VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=110.8 KPA(16.1 PSIA), COMB EXIT TEMP=792.5 DEG C(1458.6 DEG F)

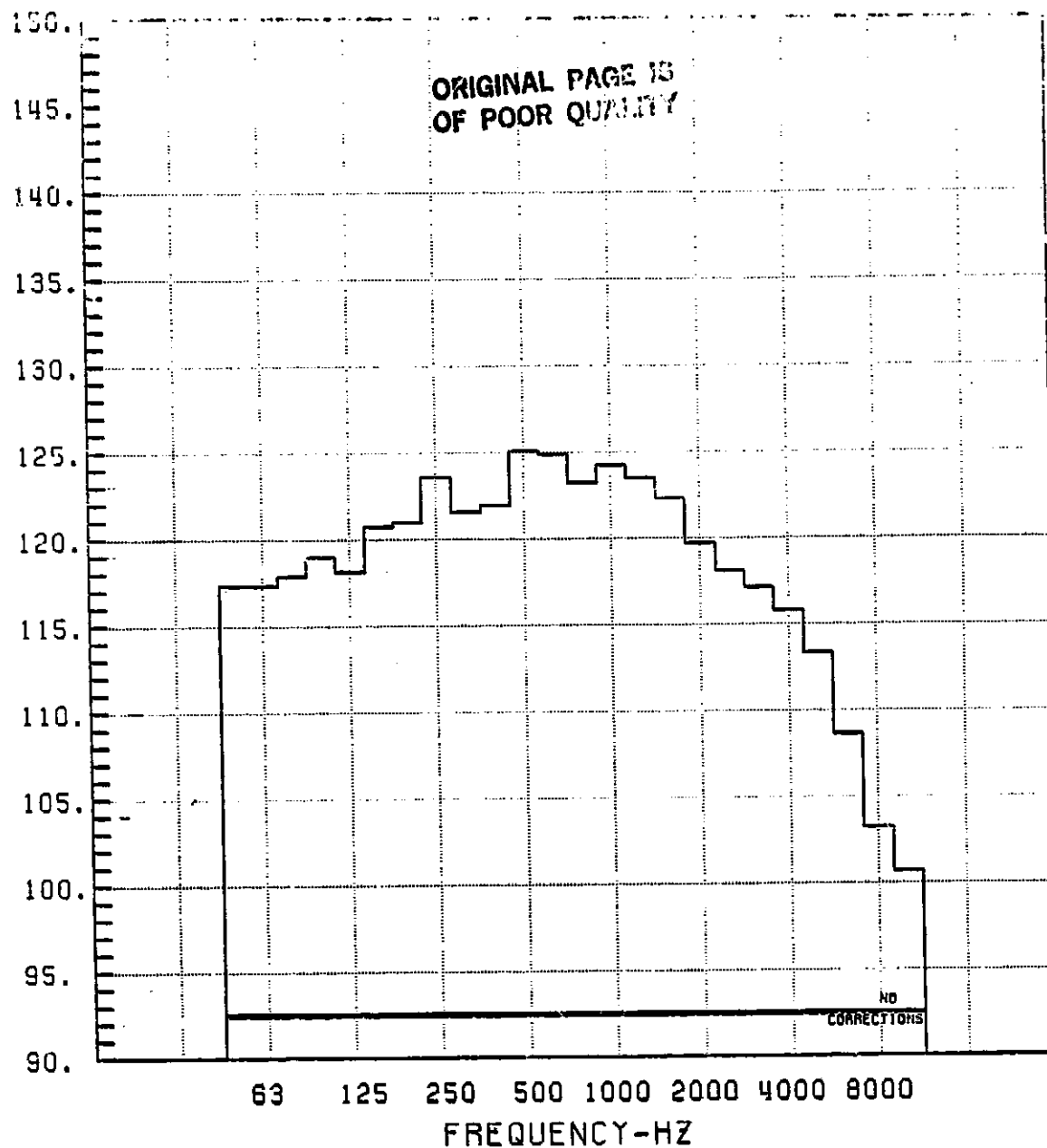
AIR FLOW= 0.84 KG/SEC(1.85 #/SEC), FUEL FLOW= 57.4 KG/HR(125.5 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 9. GROUP NUMBER: III

RUN NUMBER: 131

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 LOW PRESSURE HEAT RELEASE VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

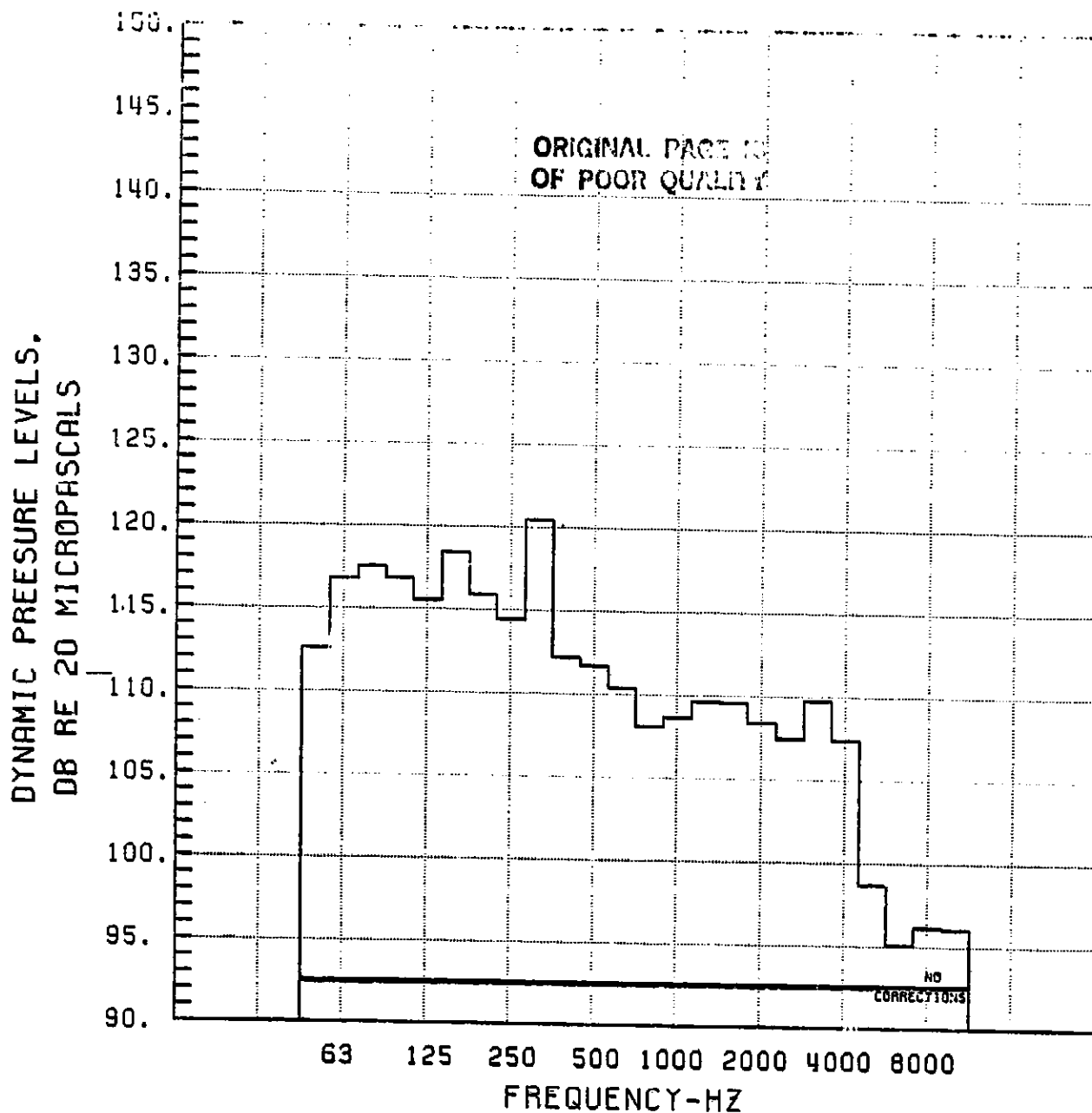
INLET PRESS=110.8 KPA(16.1 PSIA), COMB EXIT TEMP=792.5 DEG C(1458.6 DEG F)

AIR FLOW= 0.84 KG/SEC(1.85 */SEC), FUEL FLOW= 57.4 KG/HR(126.5 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 10. GROUP NUMBER: III

RUN NUMBER: 131



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 LOW PRESSURE HEAT RELEASE VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

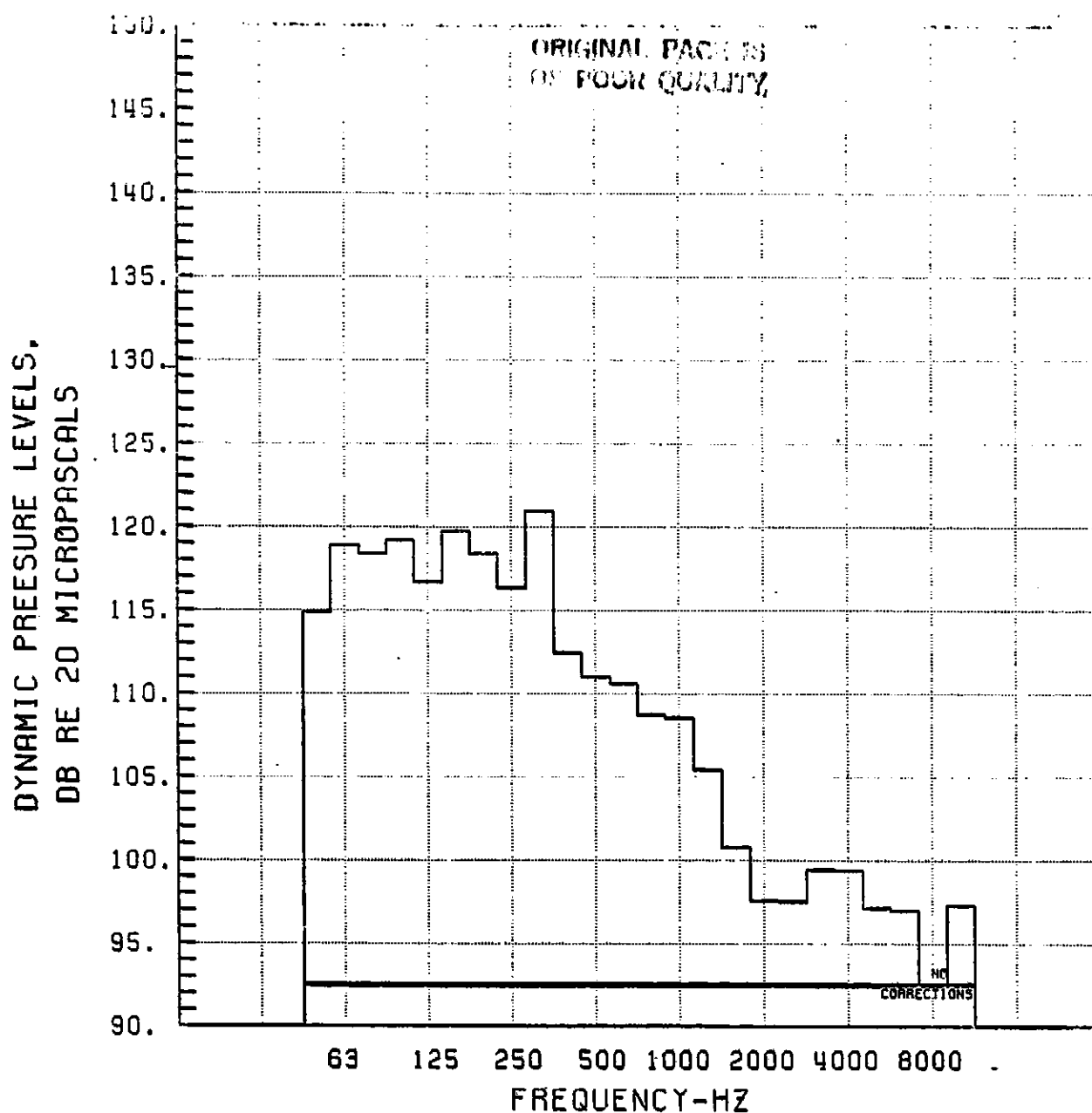
INLET PRESS=110.3 KPA(16.0 PSIA), COMB EXIT TEMP=606.9 DEG C(1124.4 DEG F)

AIR FLOW= 0.80 KG/SEC(1.76 #/SEC), FUEL FLOW= 38.5 KG/HR(84.9 #/HR)

TEST DATE: FEB. 22, 1981

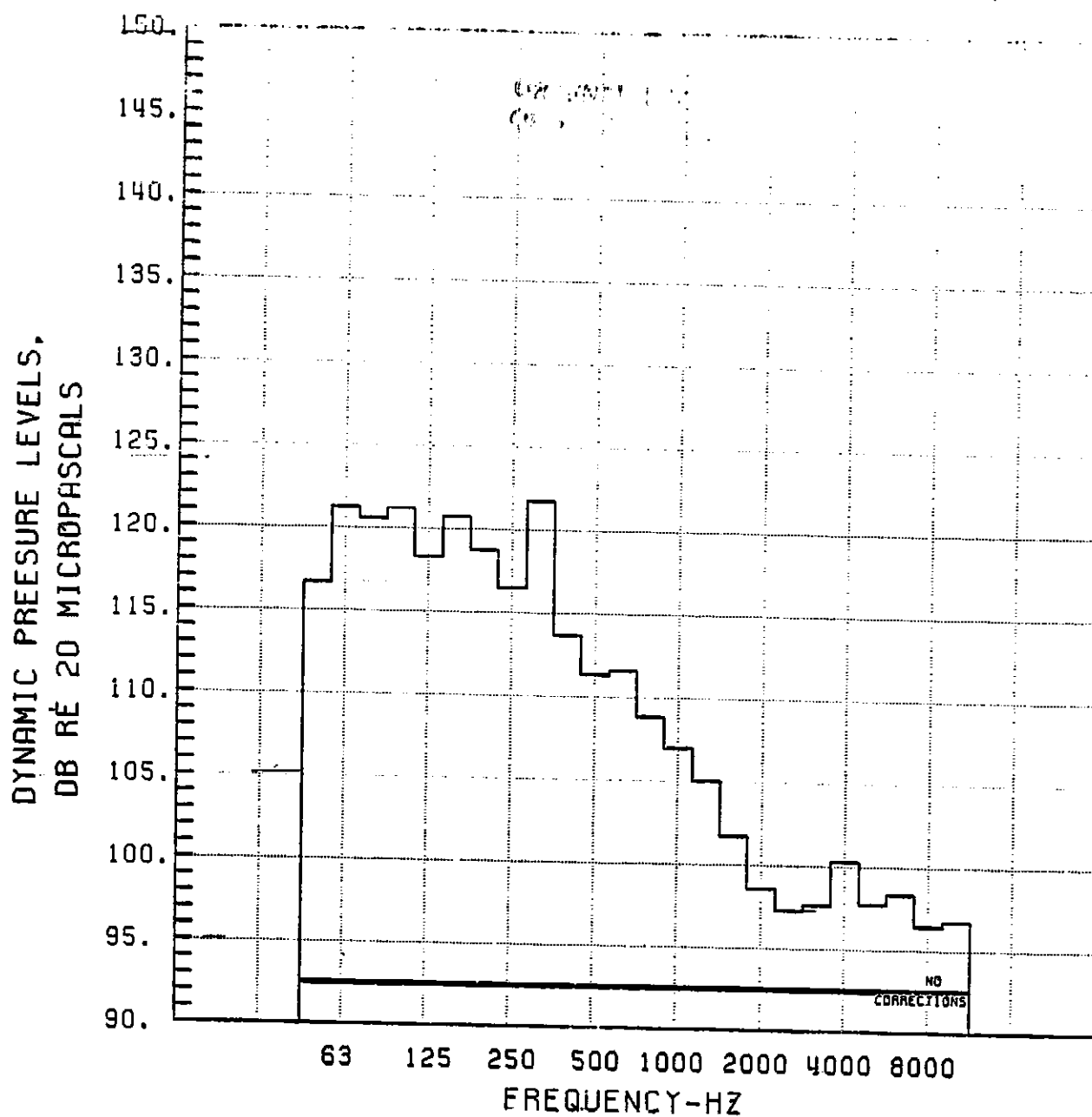
PROBE NUMBER: 1. GROUP NUMBER: III

RUN NUMBER: 134



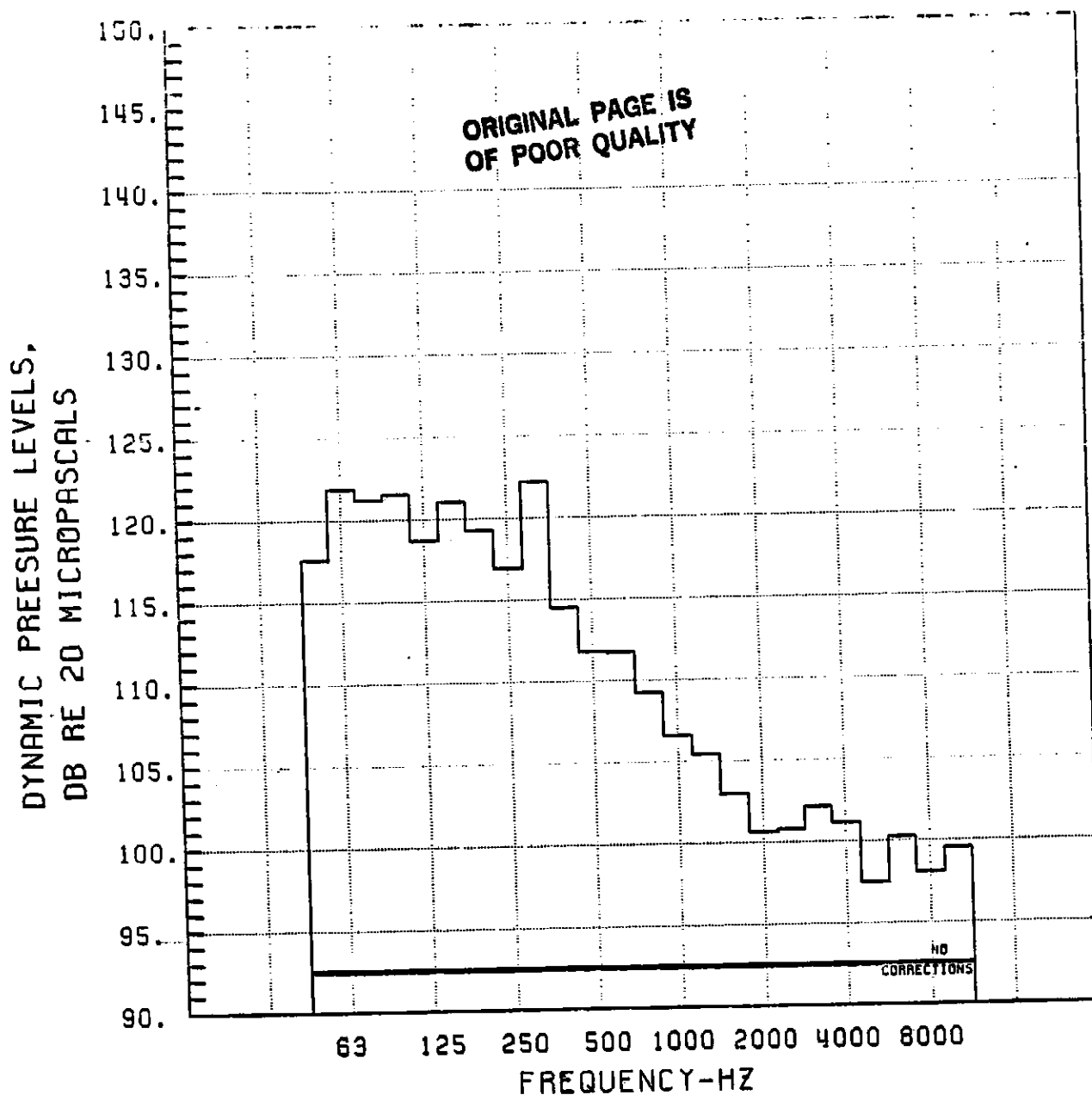
AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 LOW PRESSURE HEAT RELEASE VARIATIONS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=110.3 KPA(16.0 PSIA), COMB EXIT TEMP=606.9 DEG C(1124.4 DEG F)
AIR FLOW= 0.80 KG/SEC(1.76 #/SEC), FUEL FLOW= 38.5 KG/HRS (84.9 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 2. GROUP NUMBER: III RUN NUMBER: 134



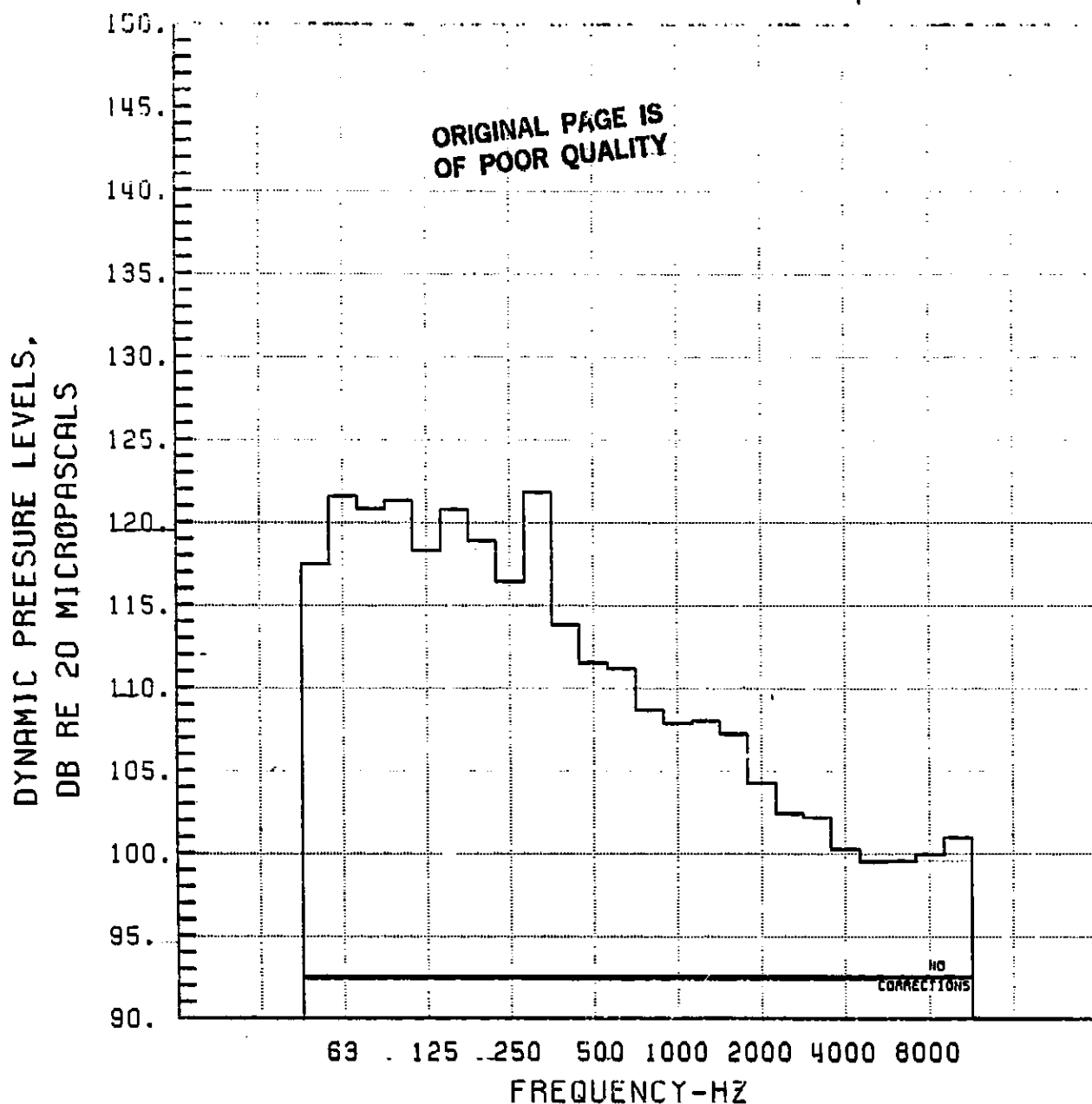
AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: TF-102 LOW PRESSURE HEAT RELEASE VARIATIONS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=110.3 KPA(15.0 PSIA), COMB EXIT TEMP=606.9 DEG C(1124.4 DEG F)
AIR FLOW= 0.80 KG/SEC(1.76 #/SEC), FUEL FLOW= 30.5 KG/HRA(94.9 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 3. GROUP NUMBER: III RUN NUMBER: 124



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

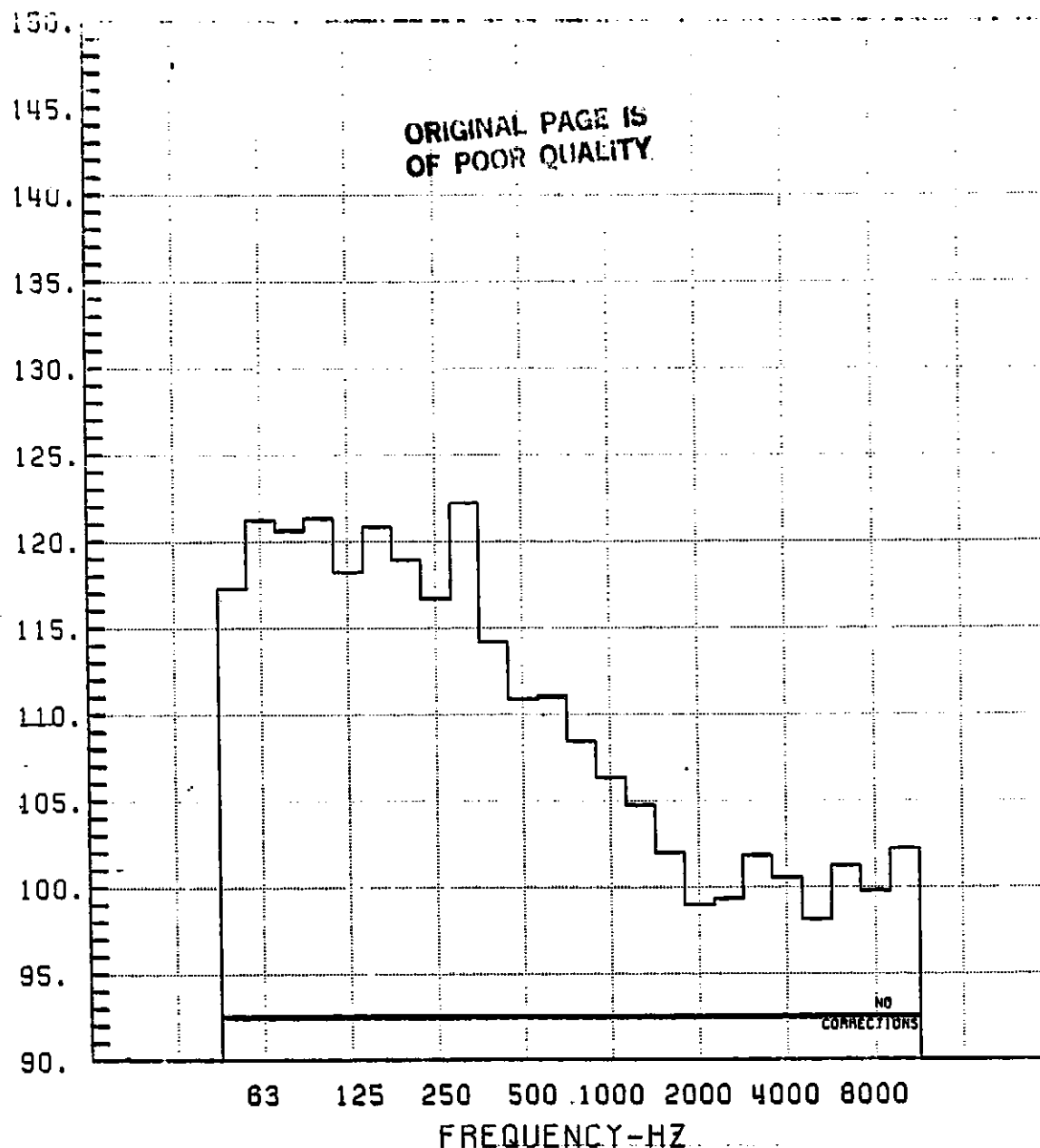
TITLE: YF-102 LOW PRESSURE HEAT RELEASE VARIATIONS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=110.3 KPA(16.0 PSIA), COMB EXIT TEMP=606.9 DEG C(1124.4 DEG F)
AIR FLOW= 0.80 KG/SEC(1.75 #/SEC), FUEL FLOW= 38.5 KG/HR(84.9 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 4. GROUP NUMBER: III RUN NUMBER: 134



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

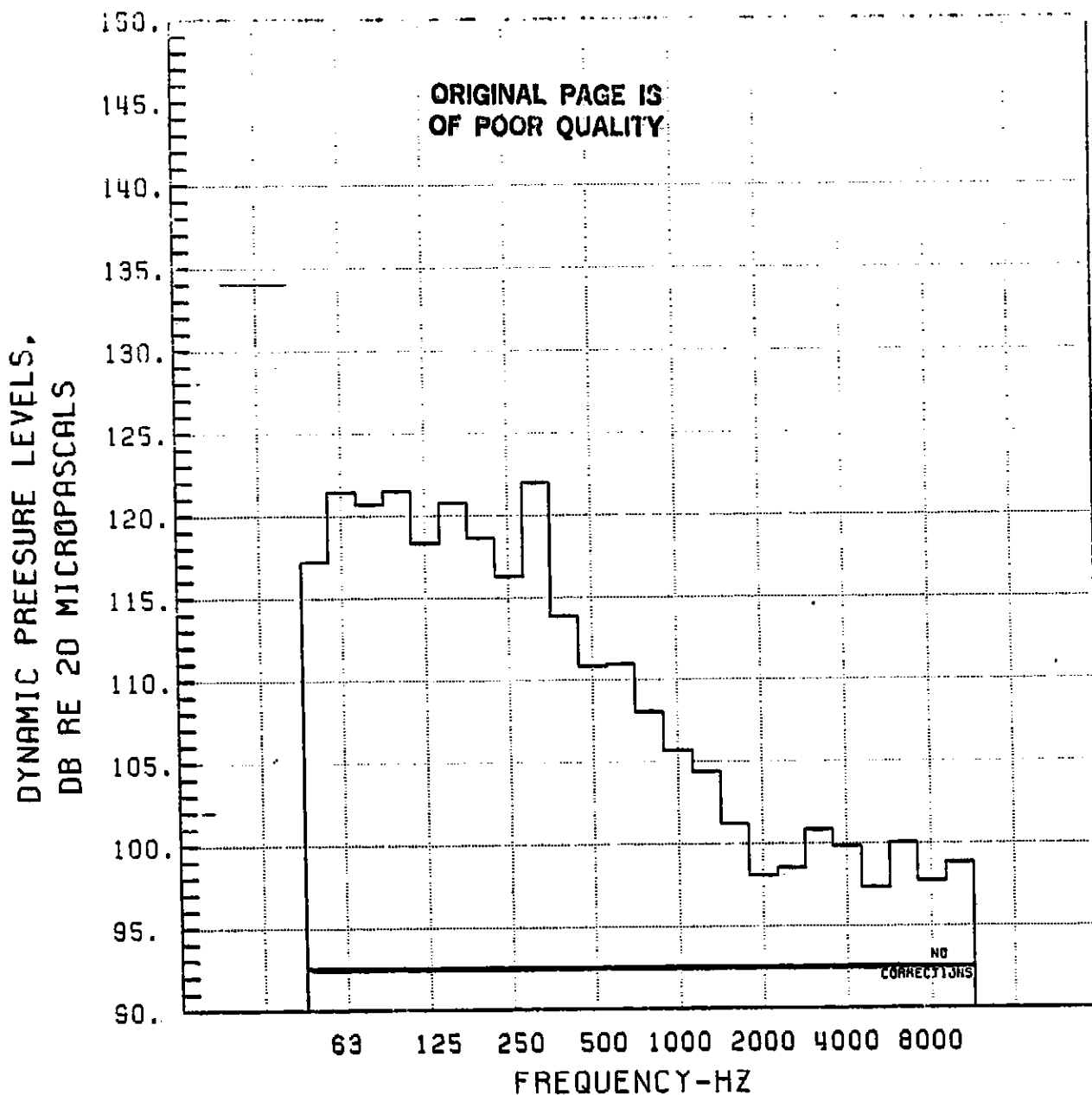
TITLE: TF-102 LOW PRESSURE HEAT RELEASE VARIATIONS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=110.3 KPA(16.0 PSIA), COMB EXIT TEMP=606.9 DEG C(1124.4 DEG F)
AIR FLOW= 0.80 KG/SEC(1.76 #/SEC), FUEL FLOW= 38.5 KG/HR(84.9 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 5. GROUP NUMBER: III RUN NUMBER: 134

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 LOW PRESSURE HEAT RELEASE VARIATIONS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=110.3 KPA(16.0 PSIA), COMB EXIT TEMP=606.9 DEG C(1124.4 DEG F)
AIR FLOW= 0.80 KG/SEC(1.76 #/SEC), FUEL FLOW= 38.5 KG/HR(84.9 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 6. GROUP NUMBER: III RUN NUMBER: 134



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 LOW PRESSURE HEAT RELEASE VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

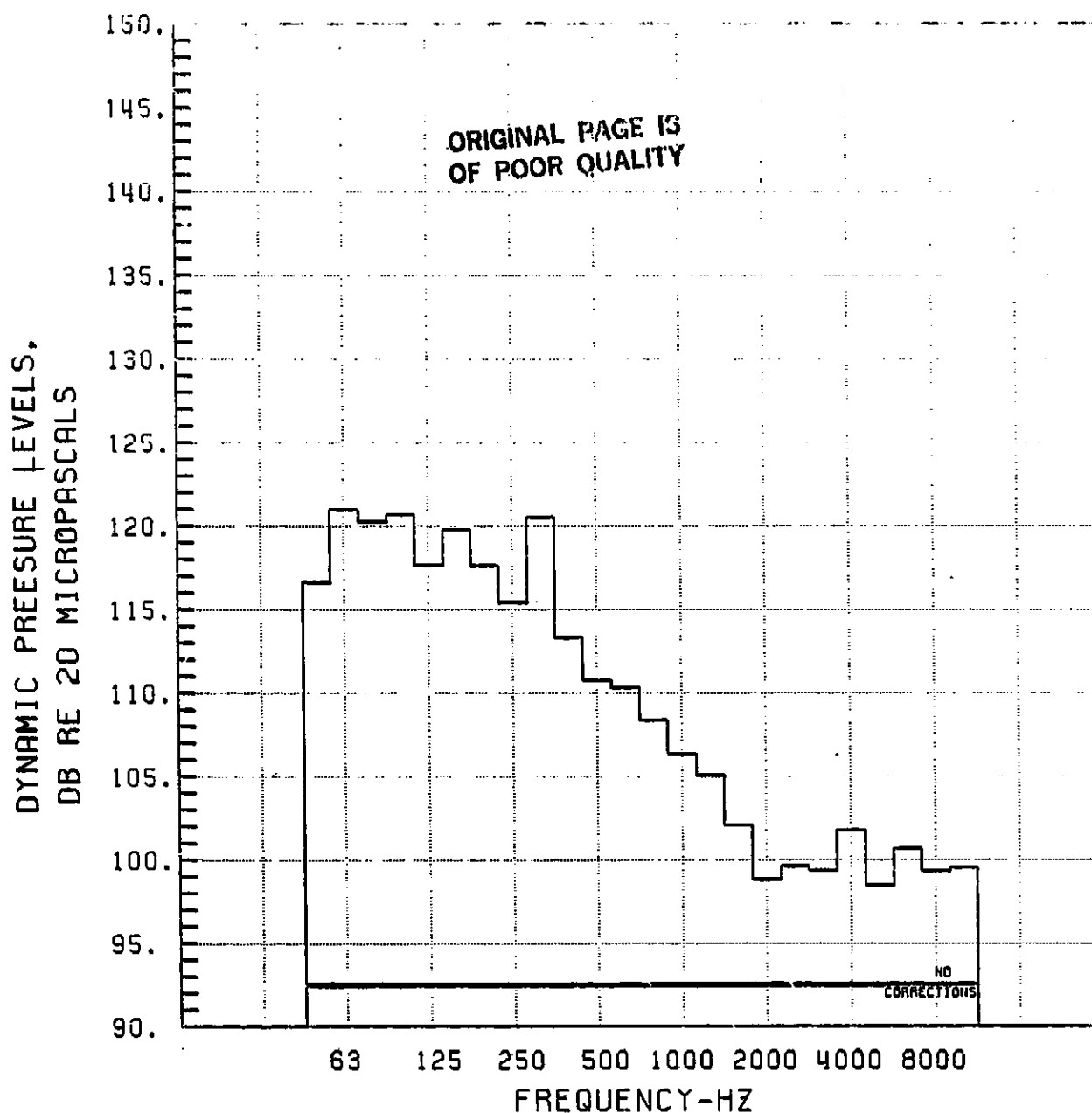
INLET PRESS=110.3 KPA(16.0 PSIA), COMB EXIT TEMP=606.9 DEG C(1124.4 DEG F)

AIR FLOW= 0.80 KG/SEC(1.76 #/SEC), FUEL FLOW= 38.5 KG/HR(84.9 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 7. GROUP NUMBER: III

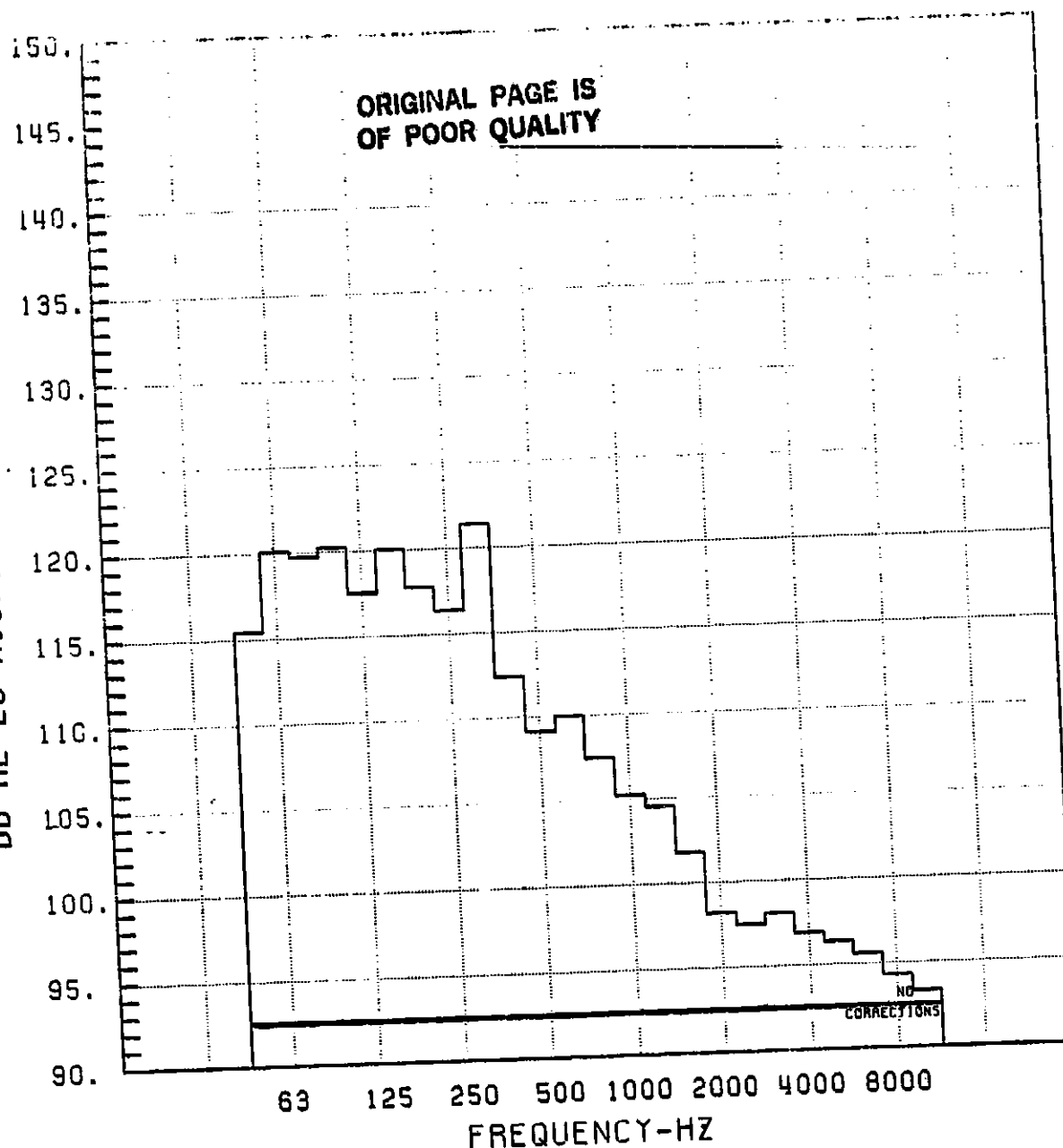
RUN NUMBER: 134



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS.

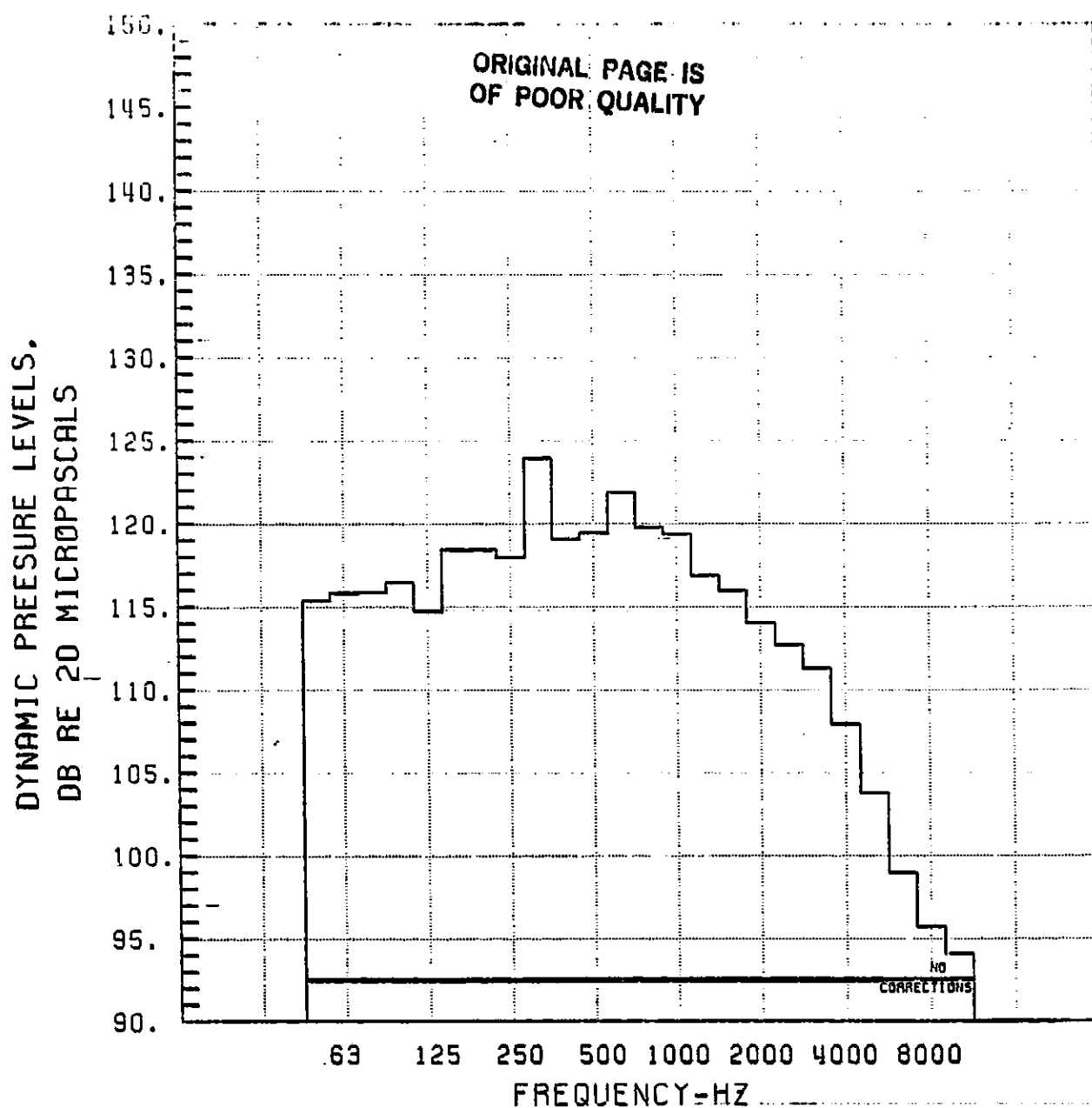
TITLE: YF-102 LOW PRESSURE HEAT RELEASE VARIATIONS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=110.3 KPA(16.0 PSIA), COMB EXIT TEMP=806.9 DEG C(1124.4 DEG F)
AIR FLOW= 0.80 KG/SEC(1.76 #/SEC), FUEL FLOW= 38.5 KG/HR(84.9 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 8. GROUP NUMBER: III RUN NUMBER: 134

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



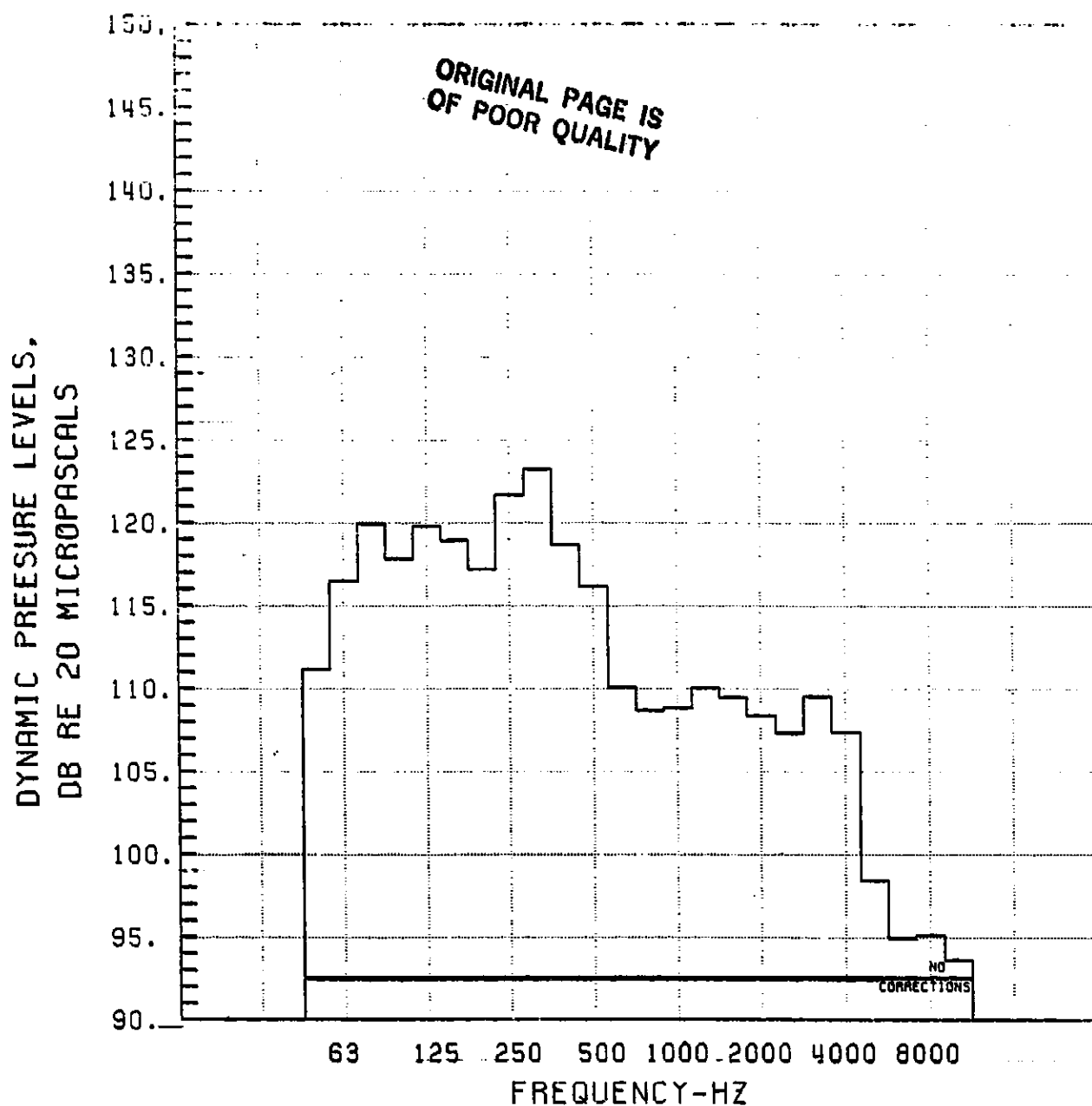
AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 LOW PRESSURE HEAT RELEASE VARIATIONS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=110.3 KPA(16.0 PSIA), COMB EXIT TEMP=606.9 DEG C(1124.4 DEG F)
AIR FLOW= 0.80 KG/SEC(1.76 #/SEC), FUEL FLOW= 38.5 KG/HR(84.9 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 9. GROUP NUMBER: III RUN NUMBER: 134



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 LOW PRESSURE HEAT RELEASE VARIATIONS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=110.3 KPA(16.0 PSIA), COMB EXIT TEMP=606.9 DEG C(1124.4 DEG F)
AIR FLOW= 0.80 KG/SEC(1.76 #/SEC), FUEL FLOW= 38.5 KG/HR(84.9 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 10. GROUP NUMBER: III RUN NUMBER: 134



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 LOW PRESSURE HEAT RELEASE VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

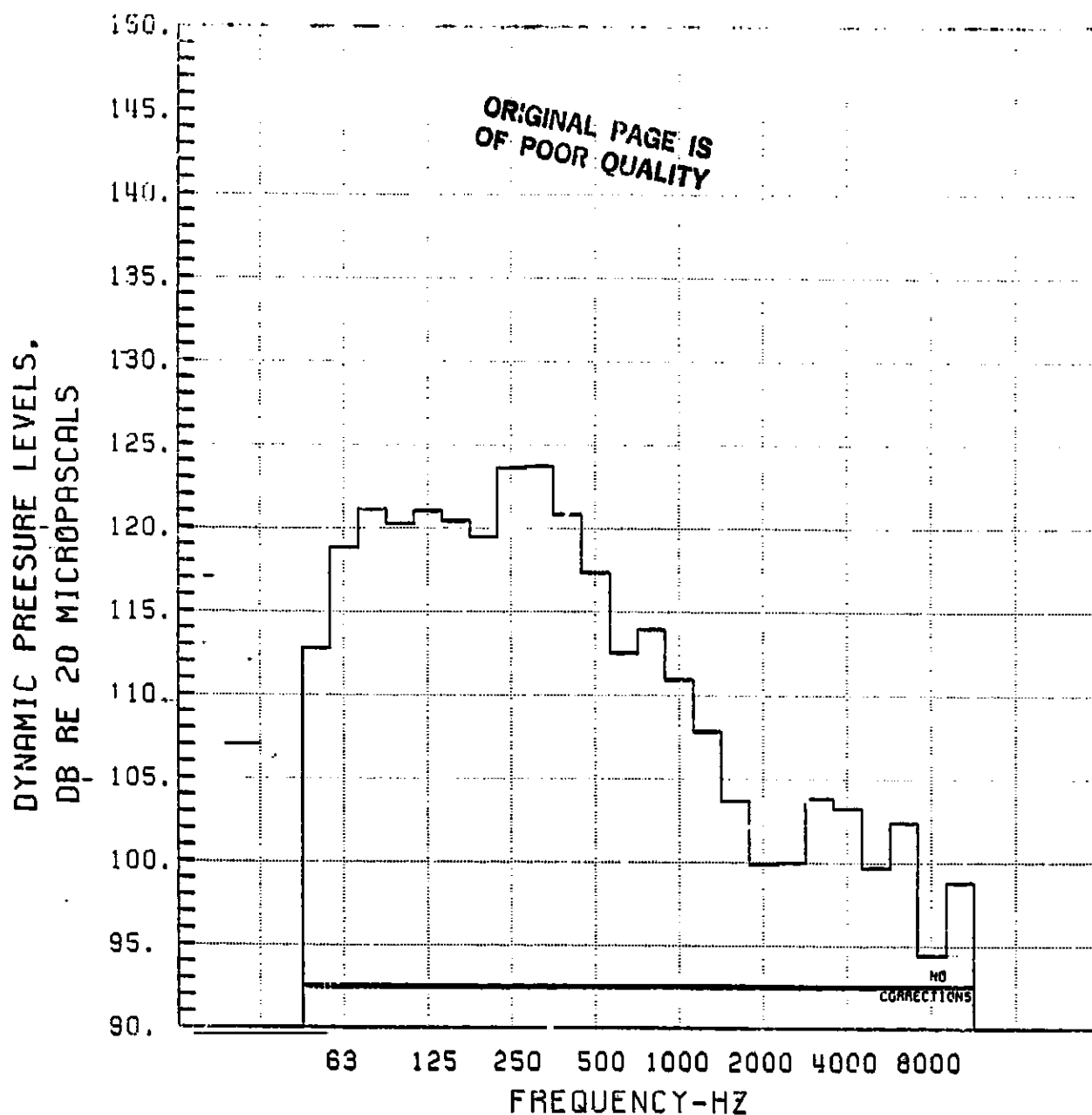
INLET PRESS=110.3 KPA(16.0 PSIA), COMB EXIT TEMP=813.6 DEG C(1496.5 DEG F)

AIR FLOW= 0.81 KG/SEC(1.78 #/SEC), FUEL FLOW= 56.9 KG/HR(125.4 #/HR)

TEST DATE: FEB. 22, 1981

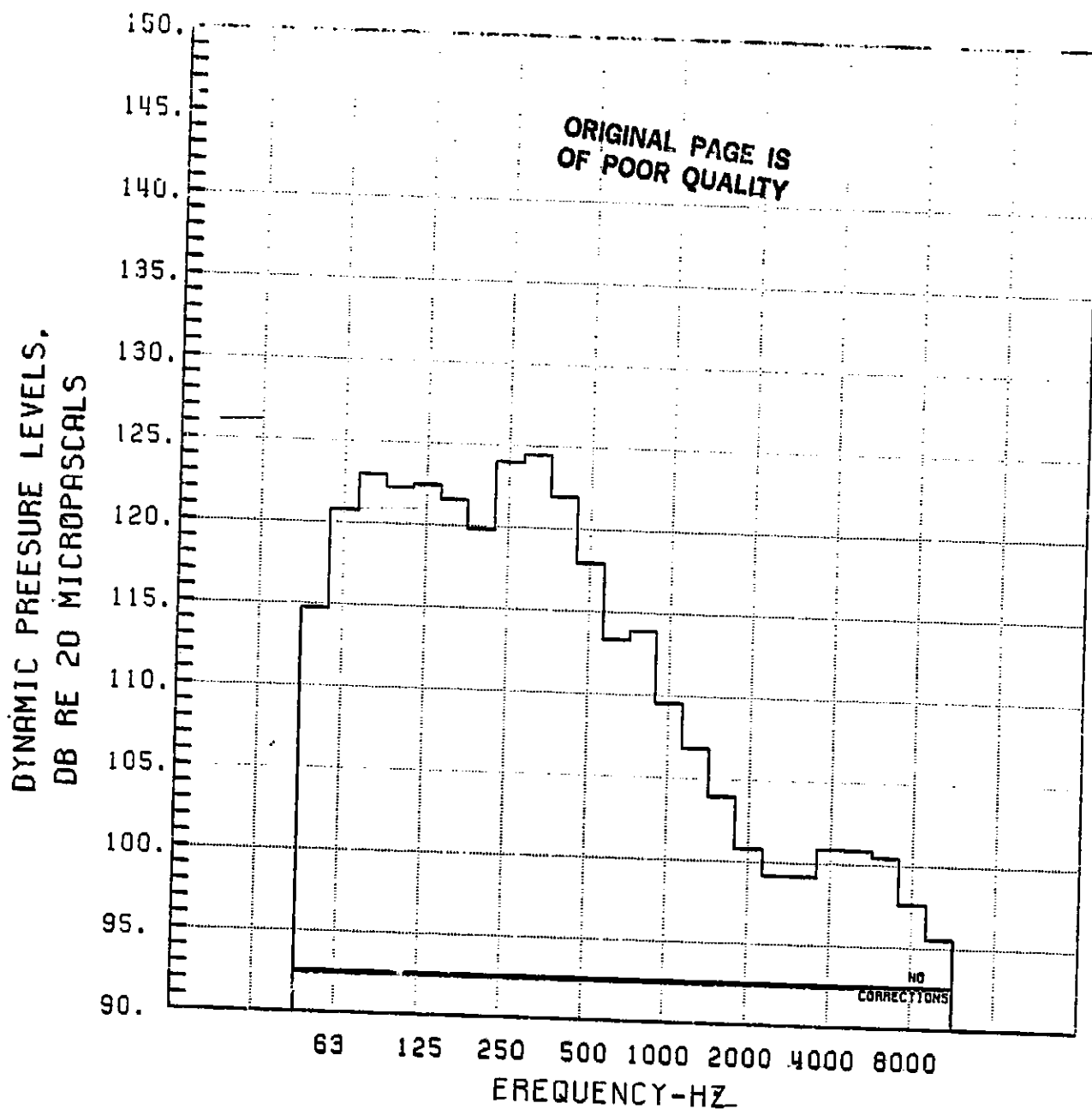
PROBE NUMBER: 1. GROUP NUMBER: III

RUN NUMBER: 135



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

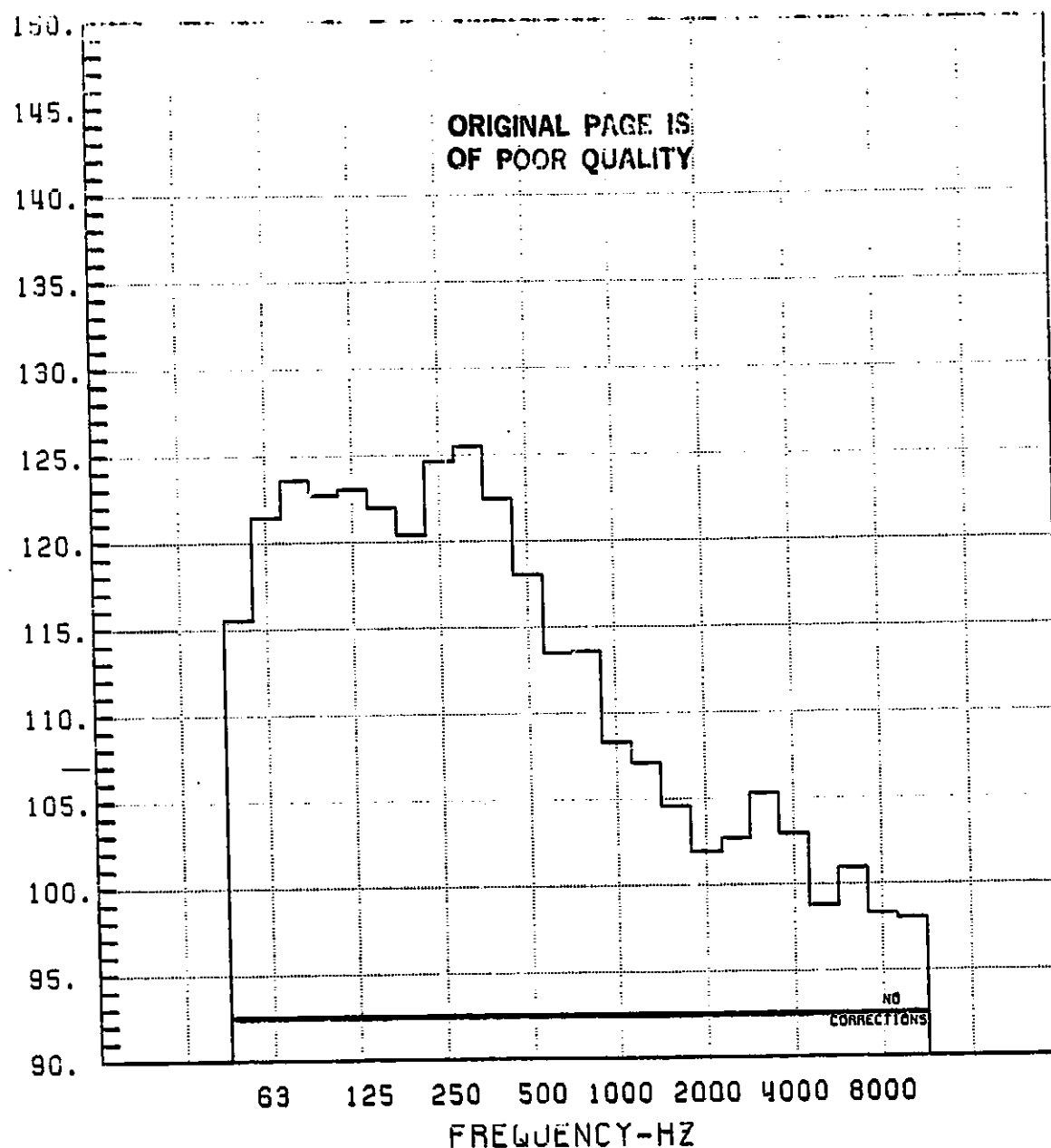
TITLE: YF-102 LOW PRESSURE HEAT RELEASE VARIATIONS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=110.3 KPA(16.0 PSIA), COMB EXIT TEMP=813.6 DEG C(1496.5 DEG F)
AIR FLOW= 0.81 KG/SEC(1.78 #/SEC), FUEL FLOW= 56.9 KG/HR(125.4 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 2. GROUP NUMBER: III RUN NUMBER: 135



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 LOW PRESSURE HEAT RELEASE VARIATIONS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=110.3 KPA(16.0 PSIA), COMB EXIT TEMP=813.6 DEG C(1496.5 DEG F)
AIR FLOW= 0.81 KG/SEC(1.78 #/SEC), FUEL FLOW= 56.9 KG/HR(125.4 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 3. GROUP NUMBER: III RUN NUMBER: 135

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 LOW PRESSURE HEAT RELEASE VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

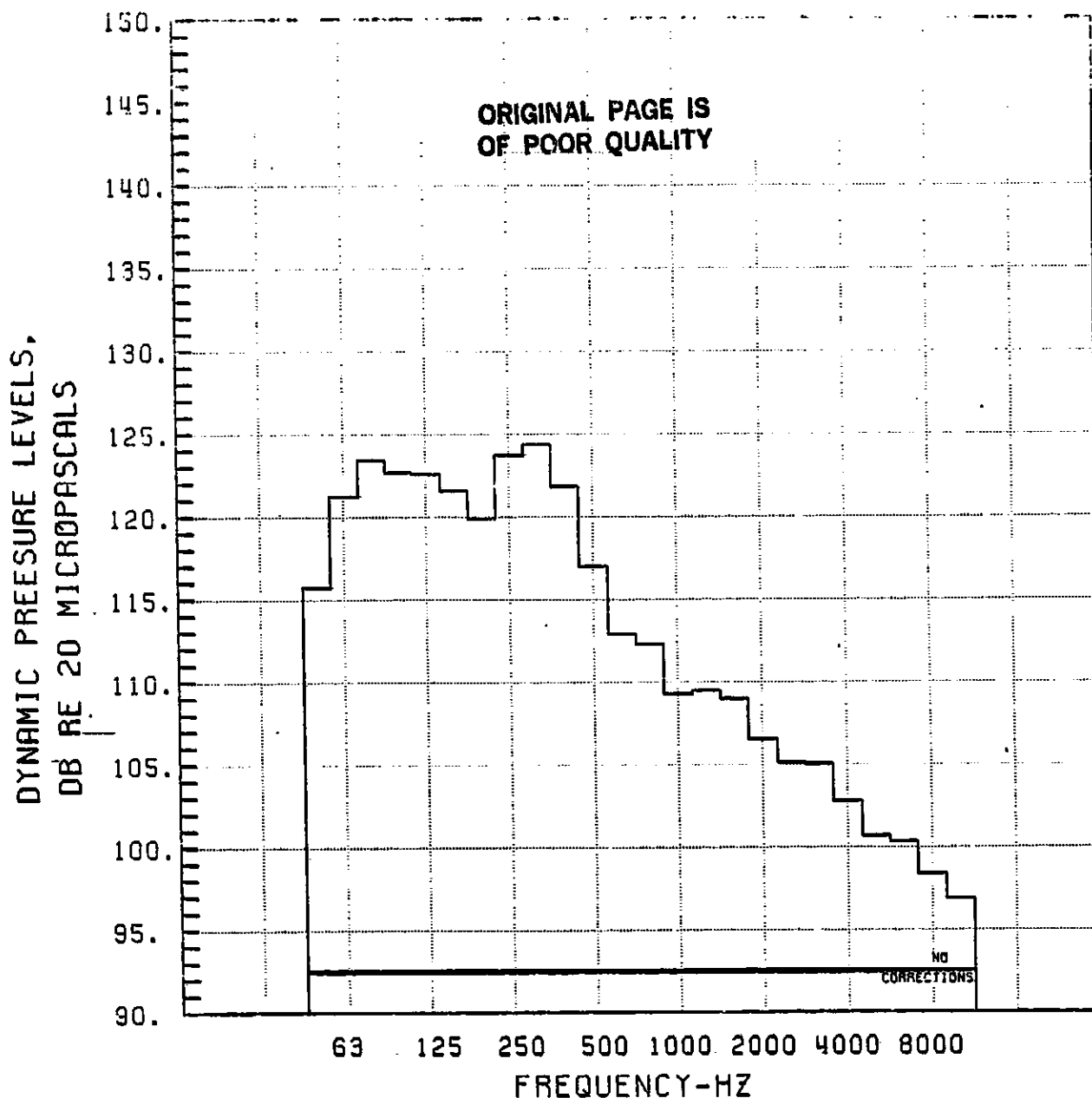
INLET PRESS=110.3 KPA(16.0 PSIA), COMB EXIT TEMP=813.6 DEG C(1496.5 DEG F)

AIR FLOW= 0.81 KG/SEC(1.78 #/SEC), FUEL FLOW= 55.9 KG/HR(125.4 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 4. GROUP NUMBER: III

RUN NUMBER: 135



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 LOW PRESSURE HEAT RELEASE VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

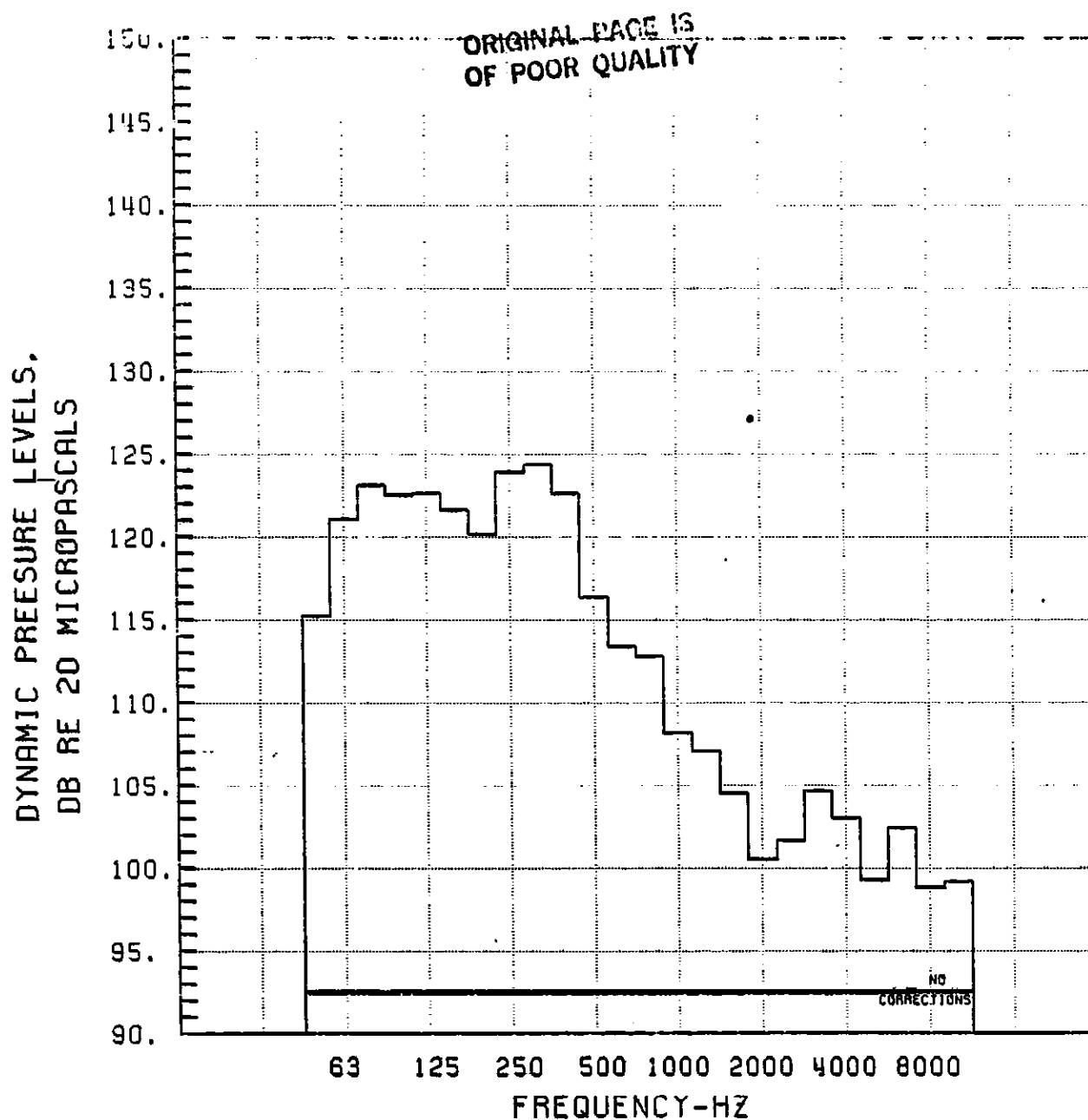
INLET PRESS=110.3 KPA(16.0 PSIA), COMB EXIT TEMP=813.6 DEG C(1496.5 DEG F)

AIR FLOW= 0.81 KG/SEC(1.78 #/SEC), FUEL FLOW= 56.9 KG/HR(125.4 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 5. GROUP NUMBER: III

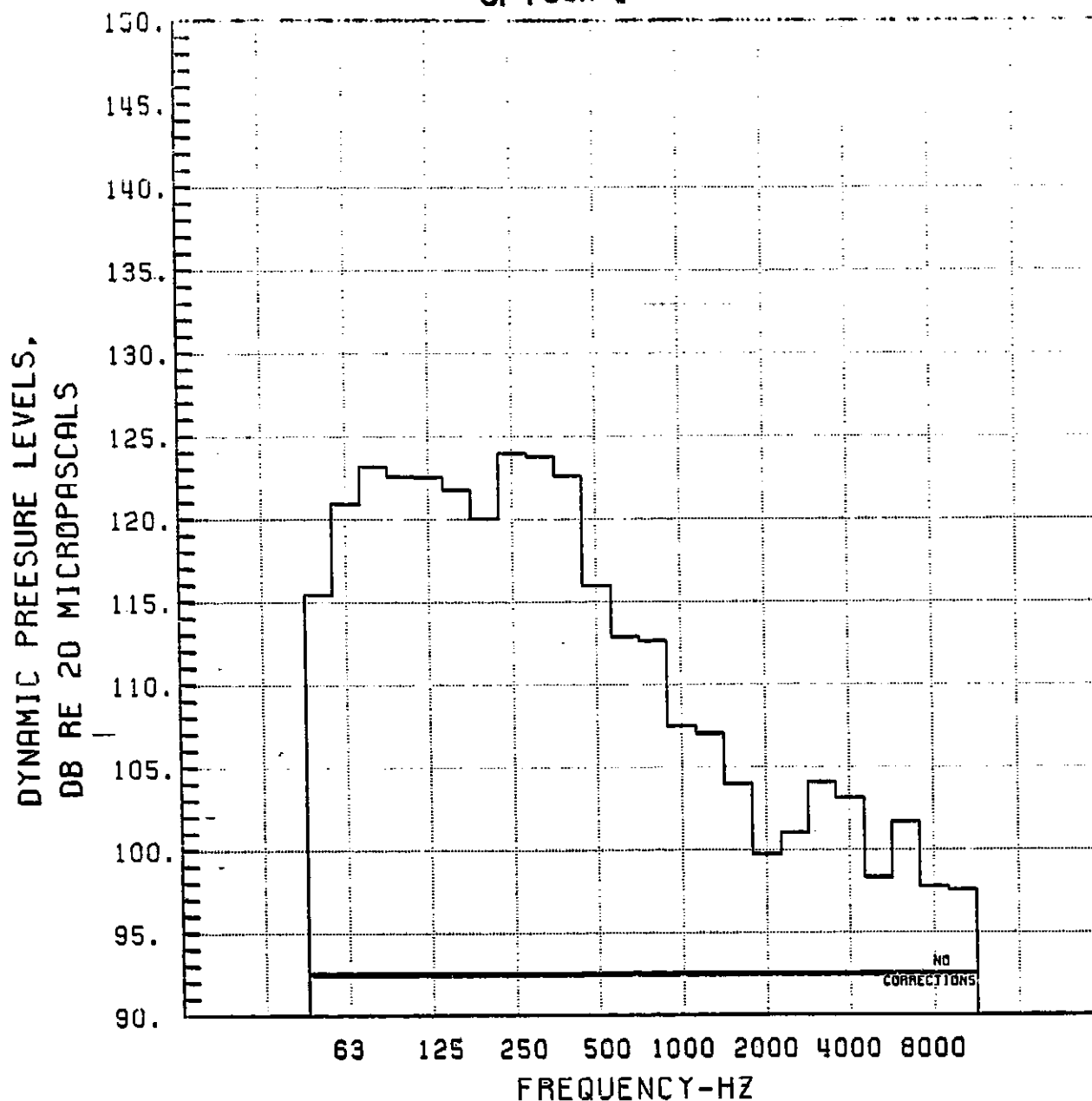
RUN NUMBER: 135



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 LOW PRESSURE HEAT RELEASE VARIATIONS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=110.3 KPA(16.0 PSIA), COMB EXIT TEMP=813.6 DEG C(1496.5 DEG F)
AIR FLOW= 0.91 KG/SEC(1.78 #/SEC), FUEL FLOW= 56.9 KG/HR(125.4 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 6. GROUP NUMBER: III RUN NUMBER: 135

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AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: F-102 LOW PRESSURE HEAT RELEASE VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=110.3 KPA(16.0 PSIA), COMB EXIT TEMP=813.6 DEG C(1496.5 DEG F)

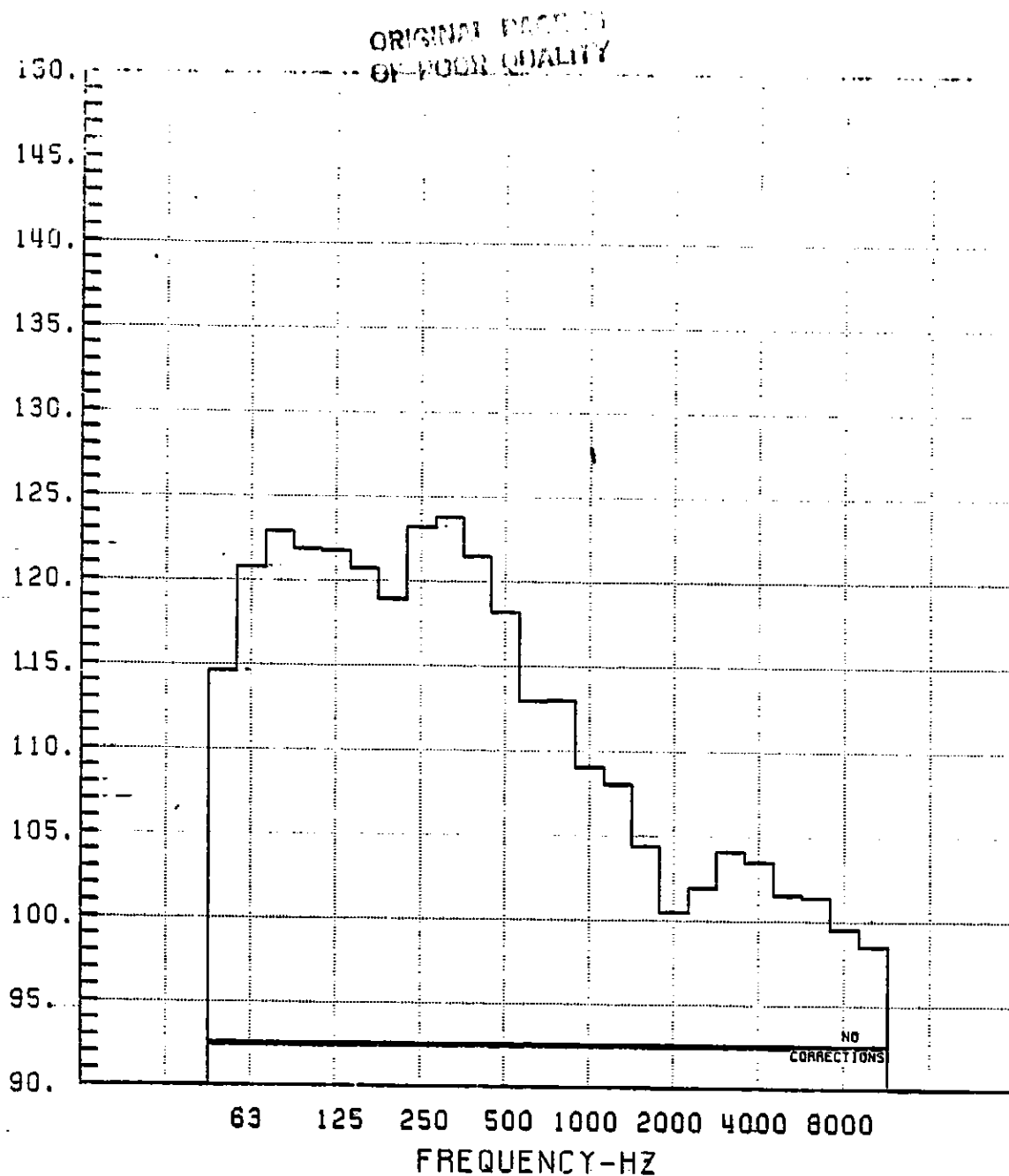
AIR FLOW= 0.81 KG/SEC(1.78 #/SEC), FUEL FLOW= 56.9 KG/HR(125.4 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 7. GROUP NUMBER: III

RUN NUMBER: 135

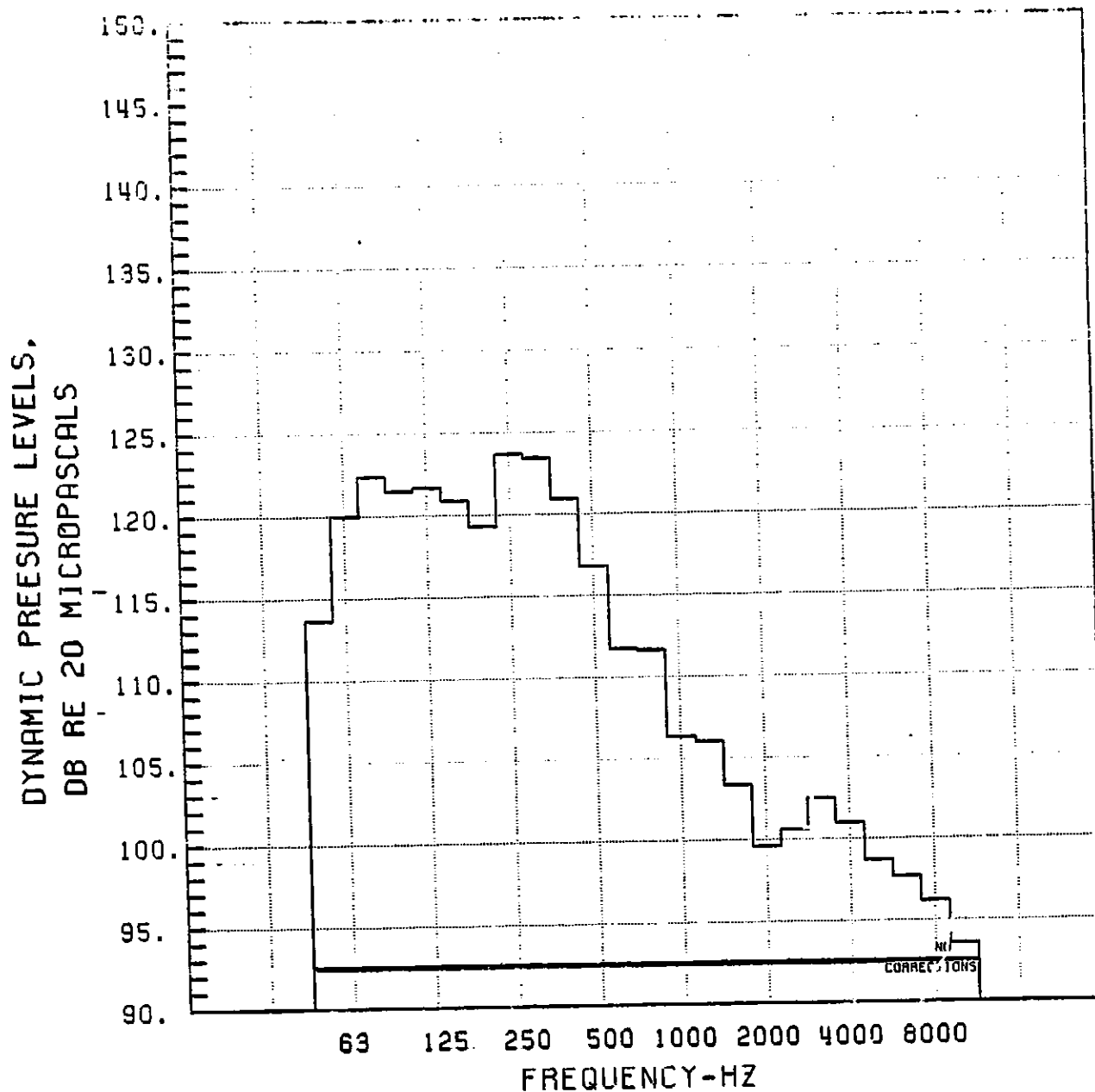
DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: CF-102 LOW PRESSURE HEAT RELEASE VARIATIONS
FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED
INLET PRESS=110.3 KPA(16.0 PSIA), COMB EXIT TEMP=813.6 DEG C(1496.5 DEG F)
AIR FLOW= 0.91 KG/SEC(1.78 #/SEC), FUEL FLOW= 56.9 KG/HRA(125.4 #/HRA)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 8. GROUP NUMBER: III RUN NUMBER: 135

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OF POOR QUALITY



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 LOW PRESSURE HEAT RELEASE VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=110.3 KPA(16.0 PSIA), COMB EXIT TEMP=813.6 DEG C(1496.5 DEG F)

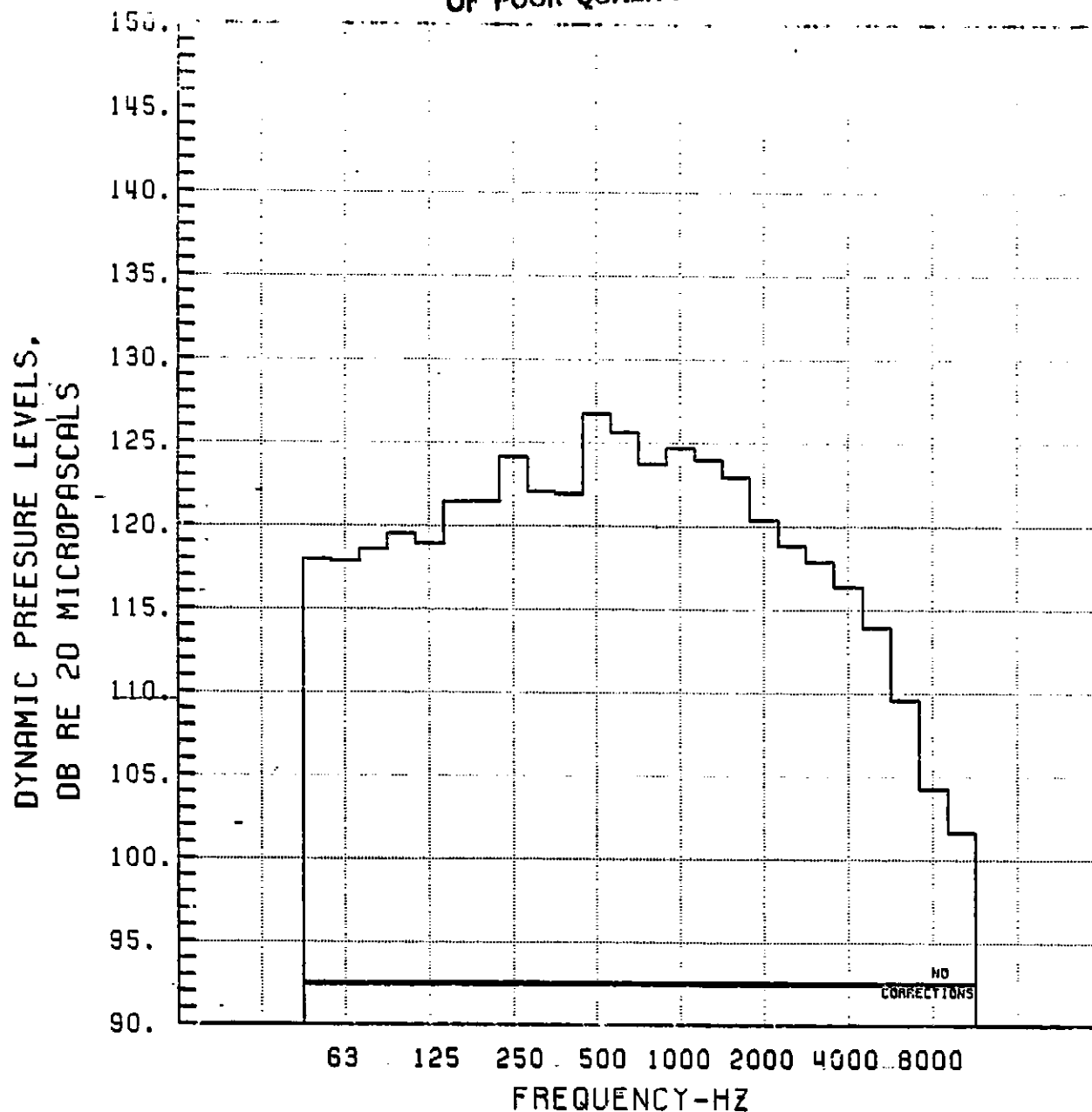
AIR FLOW= 0.81 KG/SEC(1.78 #/SEC), FUEL FLOW= 56.9 KG/HRI 125.4 #/HRI

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 9. GROUP NUMBER: III

RUN NUMBER: 135

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AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: TF-102 LOW PRESSURE HEAT RELEASE VARIATIONS

FIRST STAGE TURBINE NOZZLE GUIDE VANES INSTALLED

INLET PRESS=110.3 KPA(16.0 PSIA), COMB EXIT TEMP=813.6 DEG C(1496.5 DEG F)

AIR FLOW= 0.81 KG/SEC 1.78 #/SEC), FUEL FLOW= 56.9 KG/HR(125.4 #/HR)

TEST DATE: FEB. 22, 1981

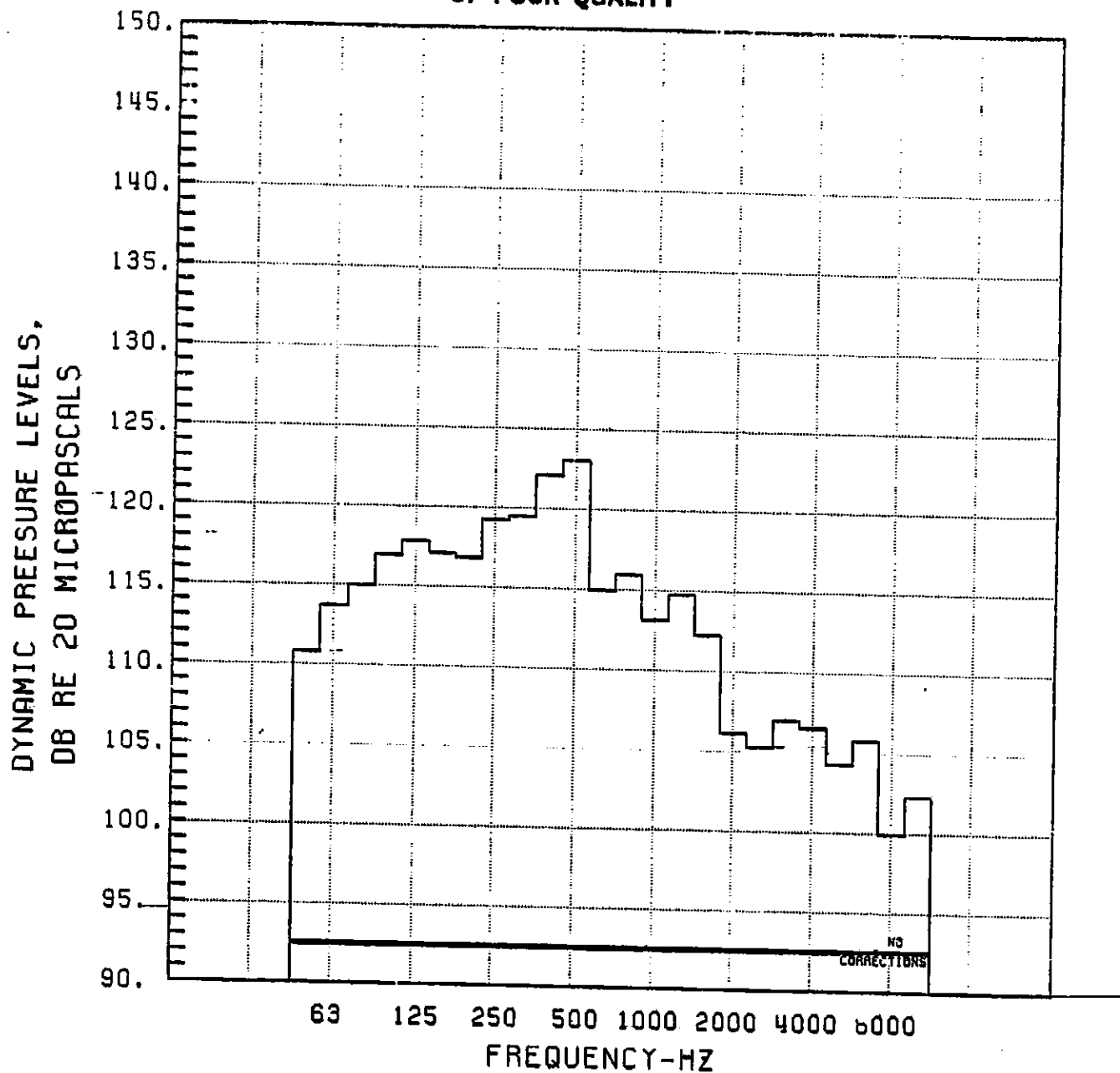
PROBE NUMBER: 10. GROUP NUMBER: III

RUN NUMBER: 135

APPENDIX B

GROUP IV

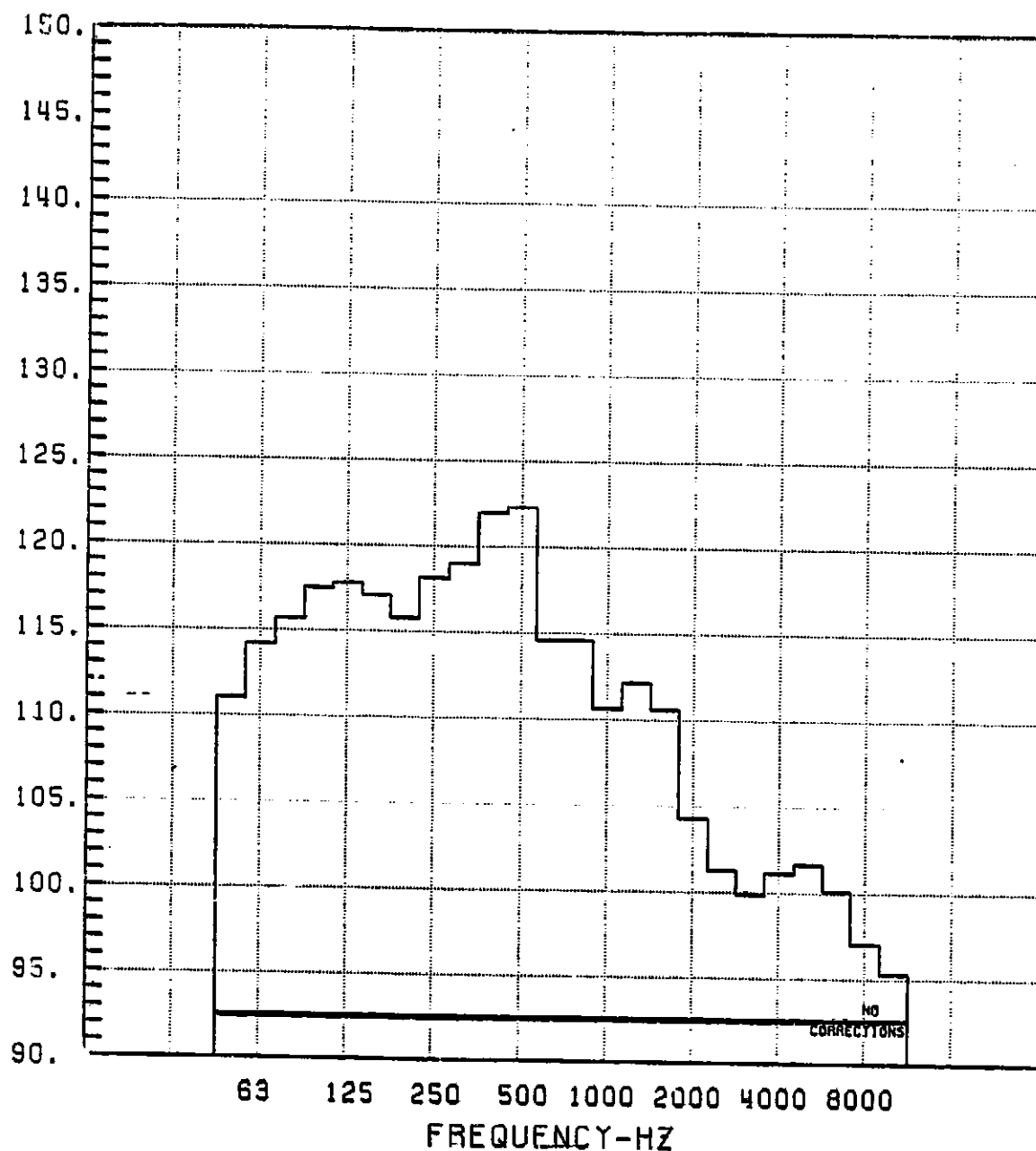
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AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED
INLET PRESS=109.3 KPA(15.9 PSIA), COMB EXIT TEMP=869.3 DEG C(1596.8 DEG F)
AIR FLOW= 0.80 KG/SEC(1.76*/SEC), FUEL FLOW= 78.6 KG/HR(173.2 */HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 2. GROUP NUMBER: IV RUN NUMBER: 236

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: TF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

INLET PRESS=109.3 KPA(15.9 PSIA), COMB EXIT TEMP=869.3 DEG C(1596.8 DEG F)

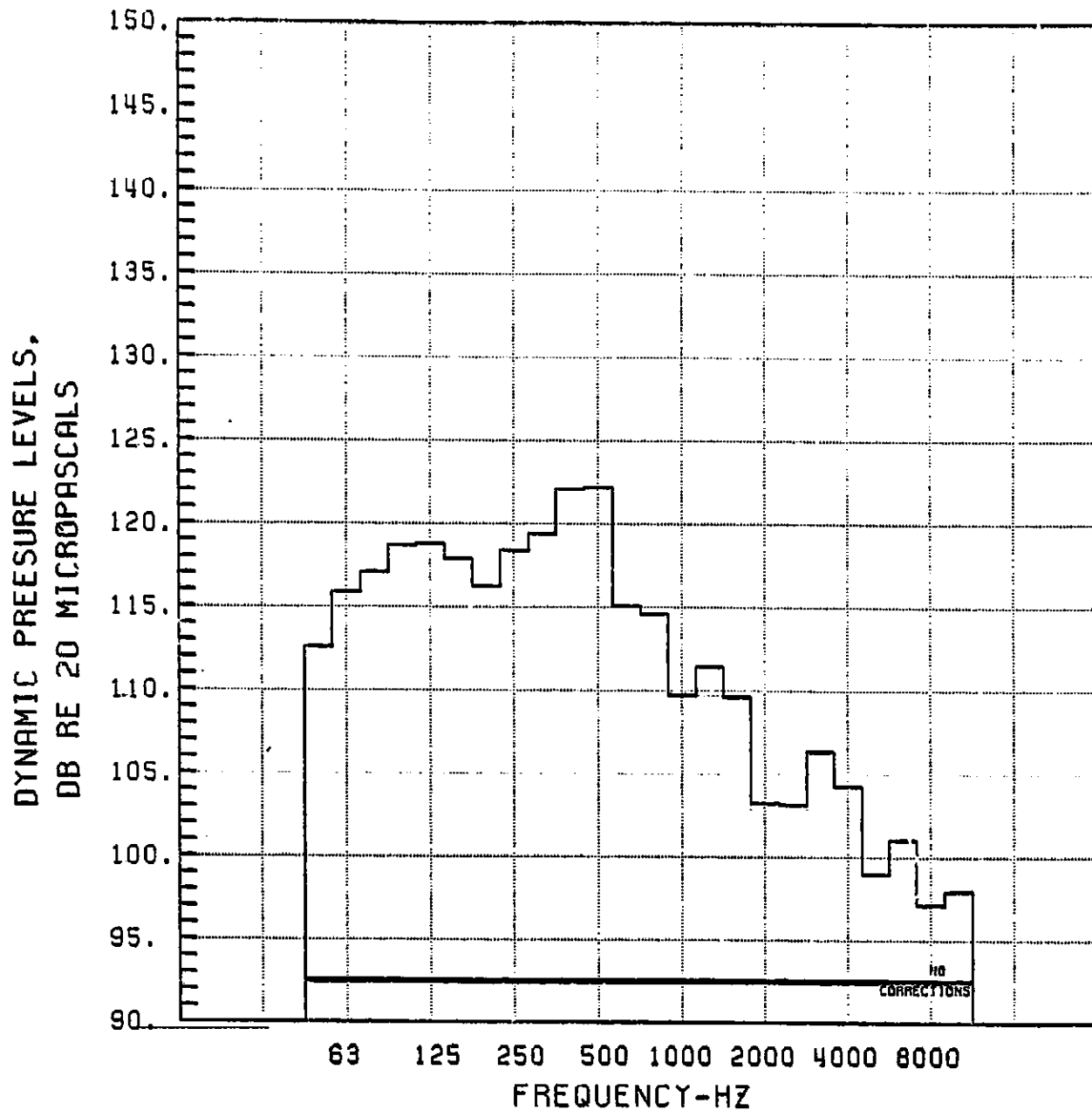
AIR FLOW= 0.80 KG/SEC(1.76*/SEC), FUEL FLOW= 78.6 KG/HR(173.2 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 3. GROUP NUMBER: IV

RUN NUMBER: 236

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OF POOR QUALITY



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

INLET PRESS=109.3 KPA(15.9 PSIA), COMB EXIT TEMP=869.3 DEG C(1596.8 DEG F)

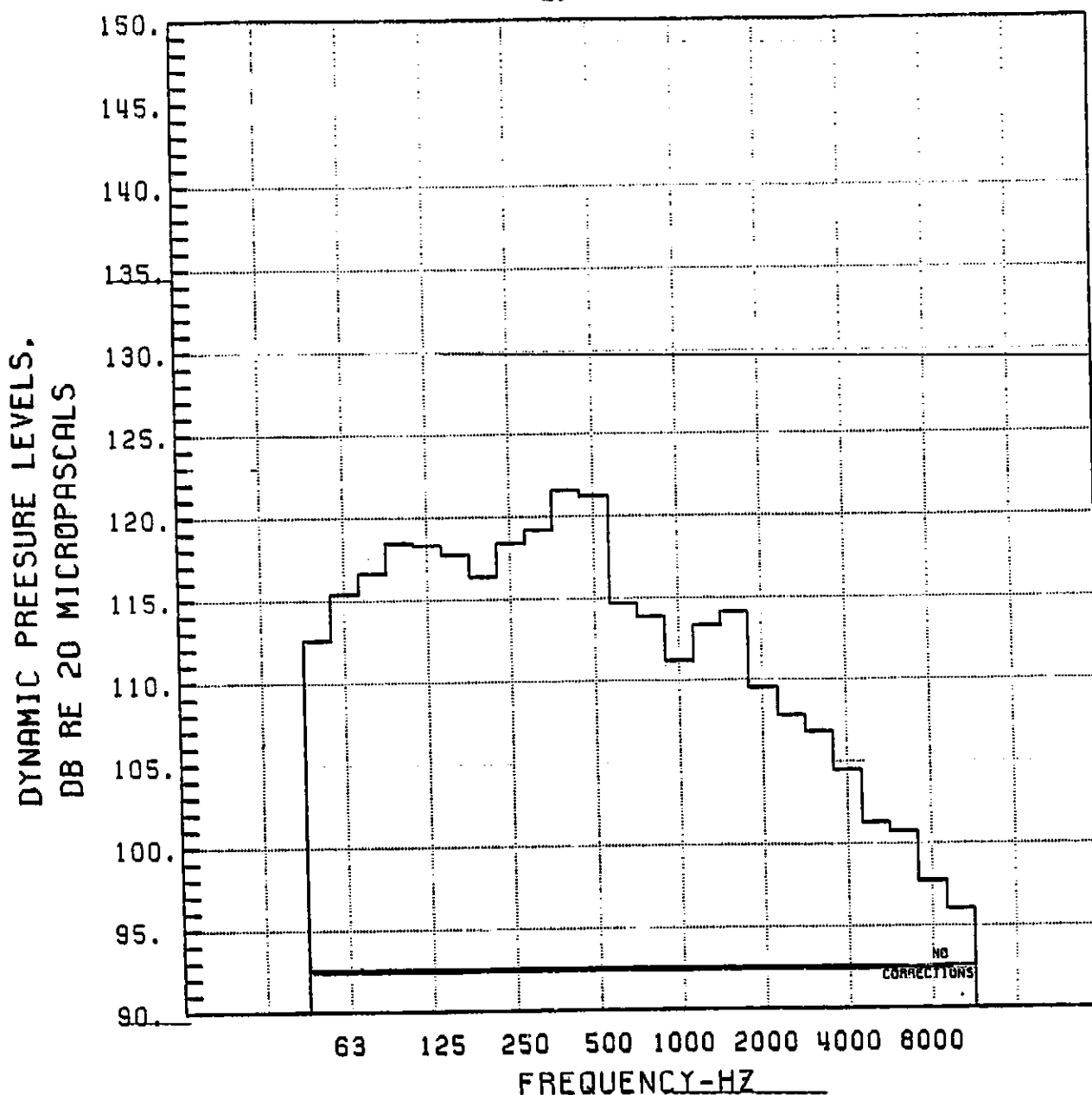
AIR FLOW= 0.80 KG/SEC(1.76#/SEC), FUEL FLOW= 78.6 KG/HR(173.2 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 4. GROUP NUMBER: IV

RUN NUMBER: 236

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AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

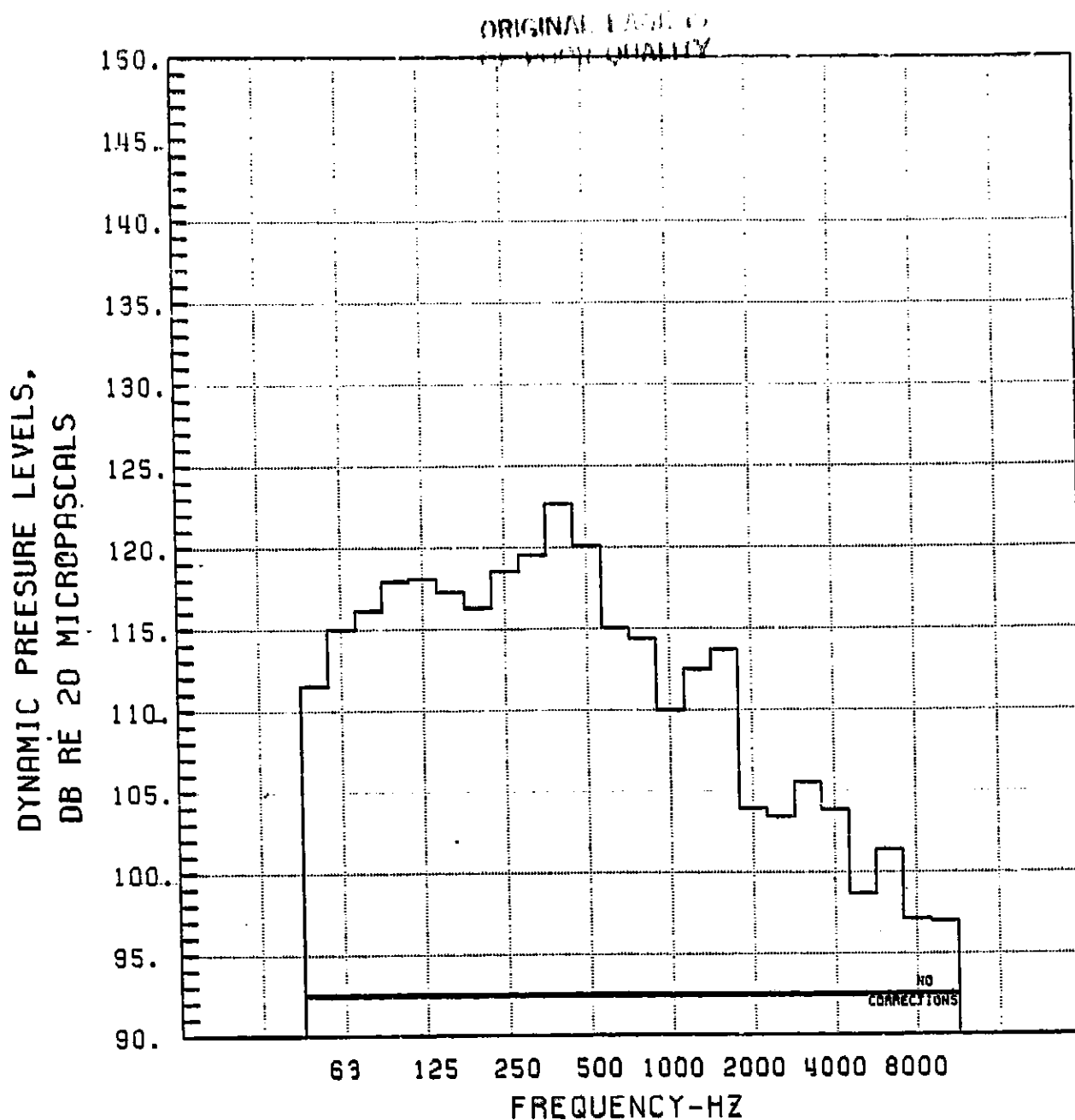
INLET PRESS=109.3 KPA(15.9 PSIA), COMB EXIT TEMP=869.3 DEG C(1596.8 DEG F)

AIR FLOW= 0.80 KG/SEC(1.76*/SEC), FUEL FLOW= 78.6 KG/HR(173.2 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 5. GROUP NUMBER: IV

RUN NUMBER: 236



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

INLET PRESS=109.3 KPA(15.9 PSIA), CLIMB EXIT TEMP=869.3 DEG C(1596.8 DEG F)

AIR FLOW= 0.80 KG/SEC(1.76 #/SEC) FUEL FLOW= 78.6 KG/HR(173.2 #/HR)

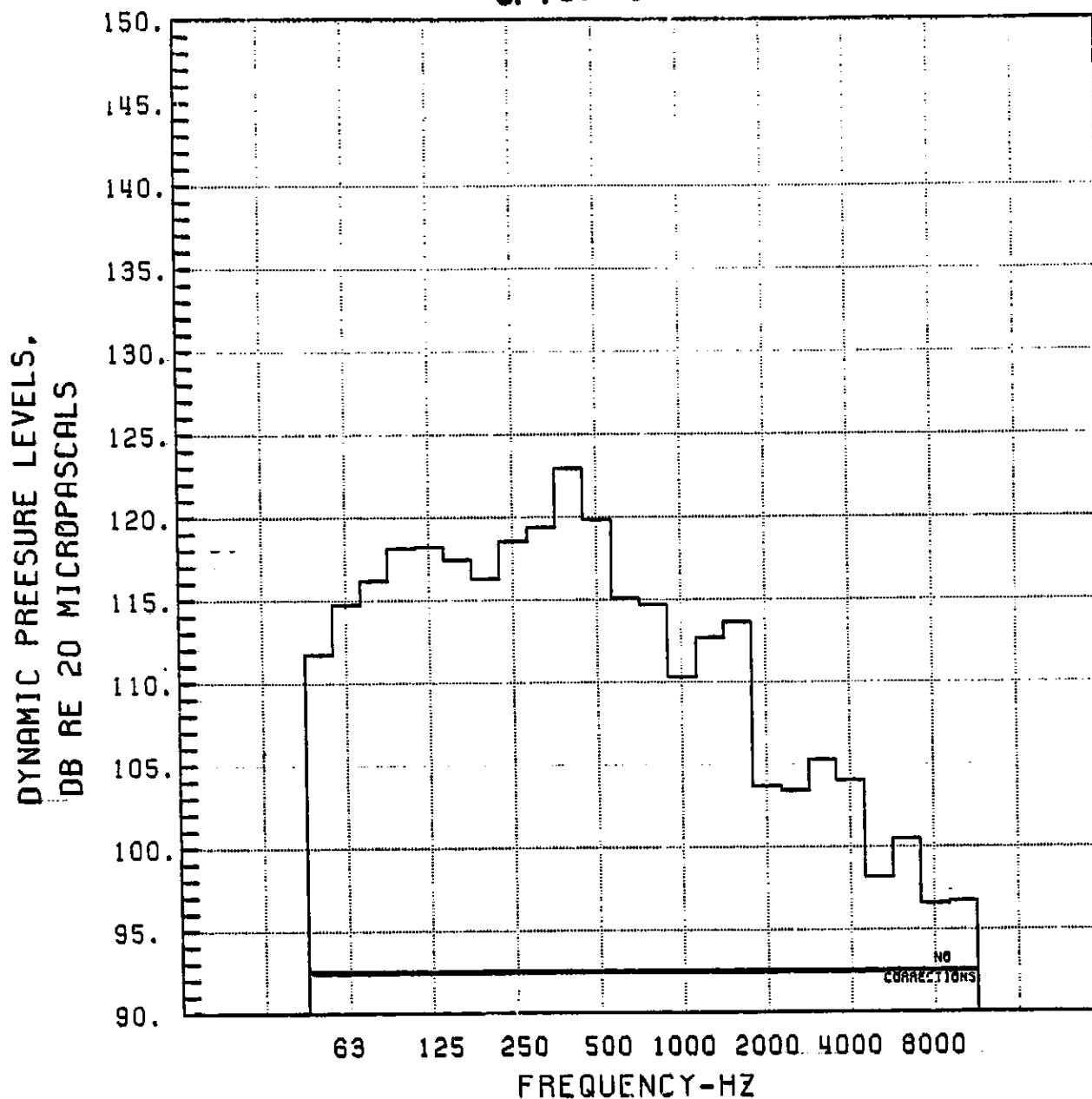
TEST DATE: FEB. 22, 1981

PROBE NUMBER: 6.

GROUP NUMBER: IV

RUN NUMBER: 236

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OF POOR QUALITY



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

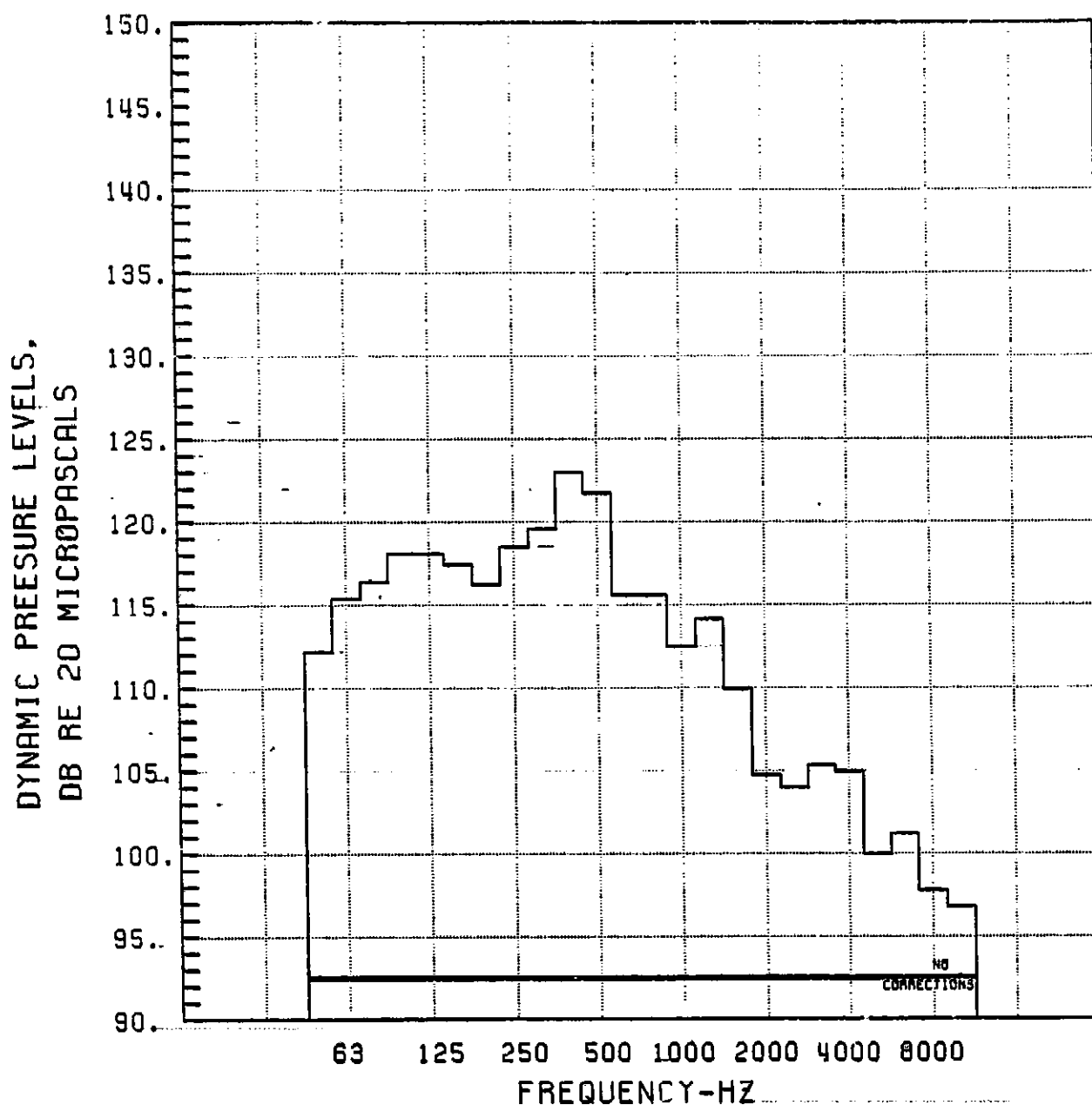
INLET PRESS=109.3 KPA(15.9 PSIA), COMB EXIT TEMP=869.3 DEG C(1596.8 DEG F)

AIR FLOW= 0.80 KG/SEC(1.76*/SEC), FUEL FLOW= 78.6 KG/HR(173.2 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 7. GROUP NUMBER: IV

RUN NUMBER: 236



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

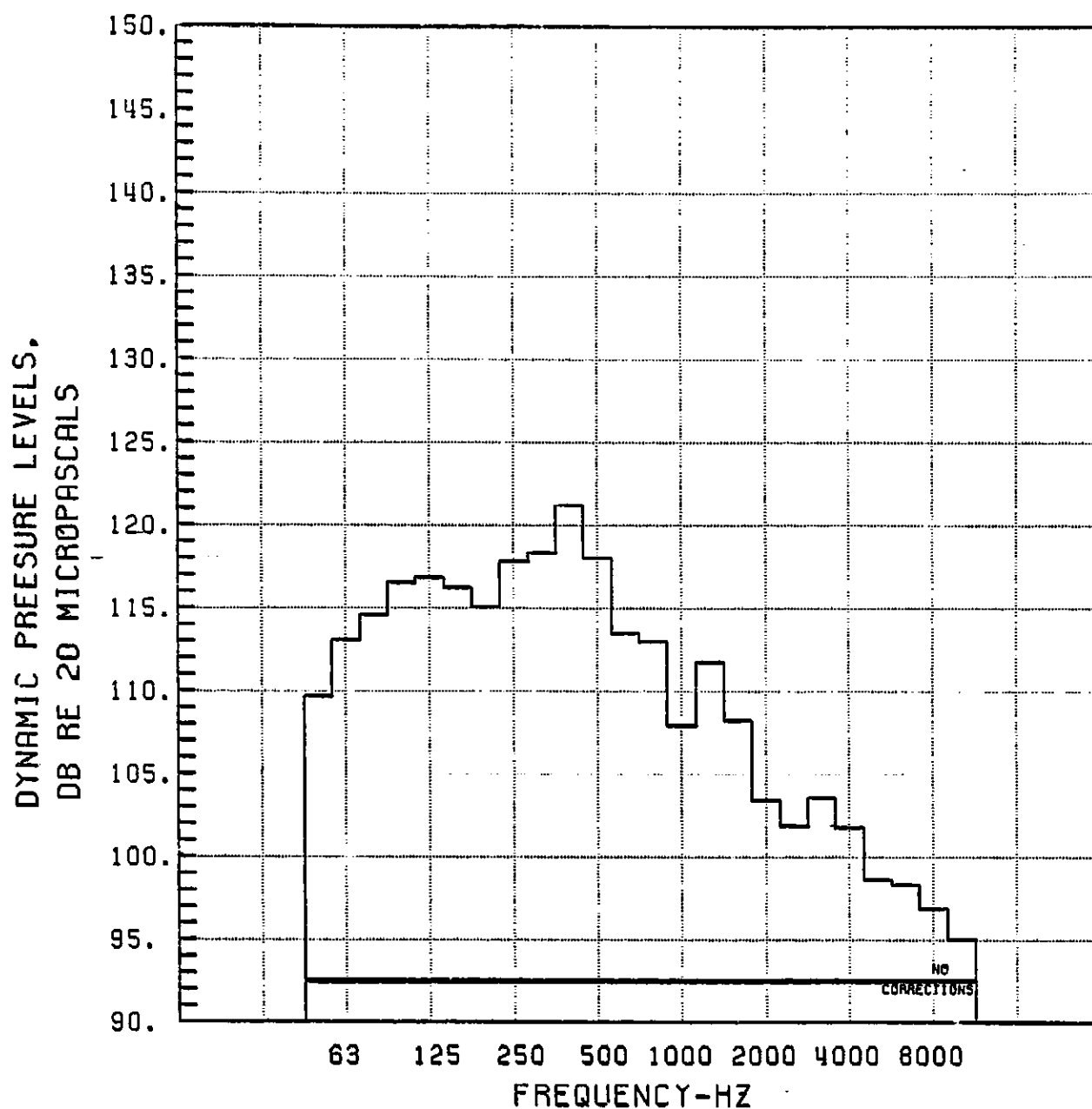
INLET PRESS=109.3 KPA(15.9 PSIA), COMB EXIT TEMP=869.3 DEG C(1596.8 DEG F)

AIR FLOW= 0.80 KG/SEC(1.76#/SEC), FUEL FLOW= 78.6 KG/HR(173.2 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 8. GROUP NUMBER: IV

RUN NUMBER: 236



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

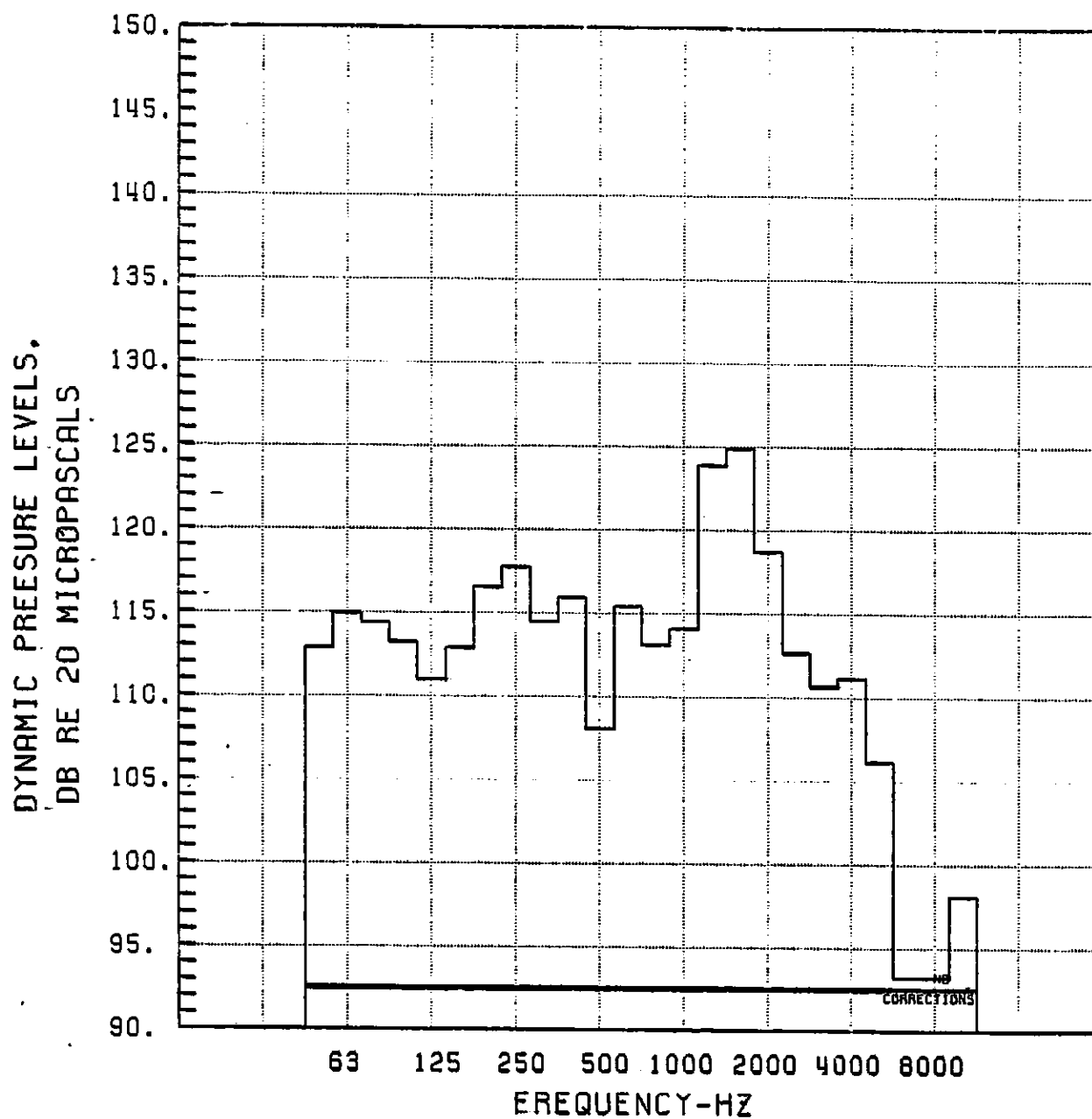
INLET PRESS=109.3 KPA(15.9 PSIA), COMB EXIT TEMP=869.3 DEG C(1596.8 DEG F)

AIR FLOW= 0.80 KG/SEC(1.76*/SEC), FUEL FLOW= 78.6 KG/HR(173.2 */HR)

TEST DATE: FEB. 22, 1981

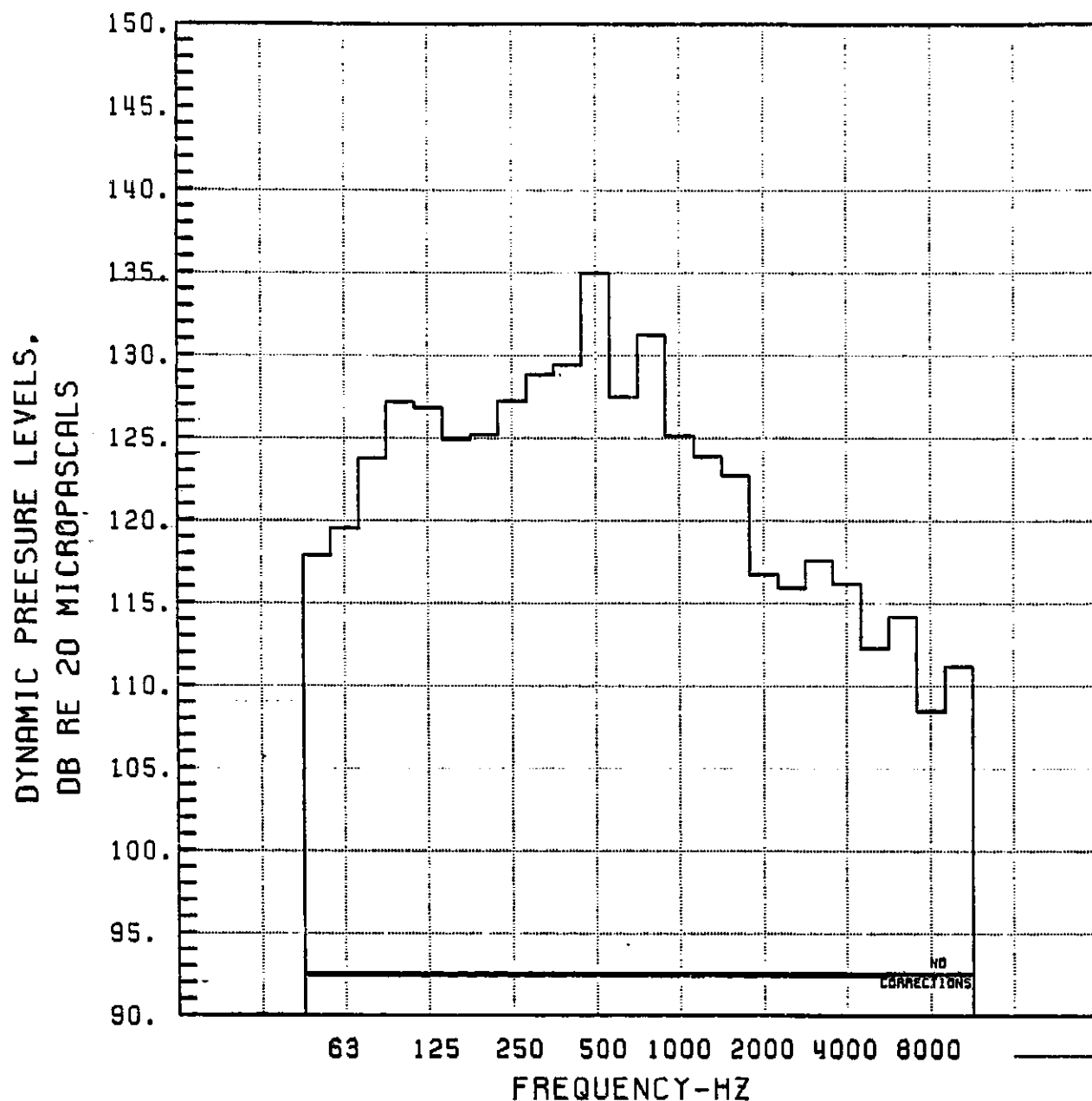
PROBE NUMBER: 9. GROUP NUMBER: IV

RUN NUMBER: 236



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED
INLET PRESS=109.3 KPA(15.9 PSIA), COMB EXIT TEMP=869.3 DEG C(1596.8 DEG F)
AIR FLOW= 0.80 KG/SEC(1.76*/SEC), FUEL FLOW= 78.6 KG/HR(173.2 */HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 10. GROUP NUMBER: IV RUN NUMBER: 236



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

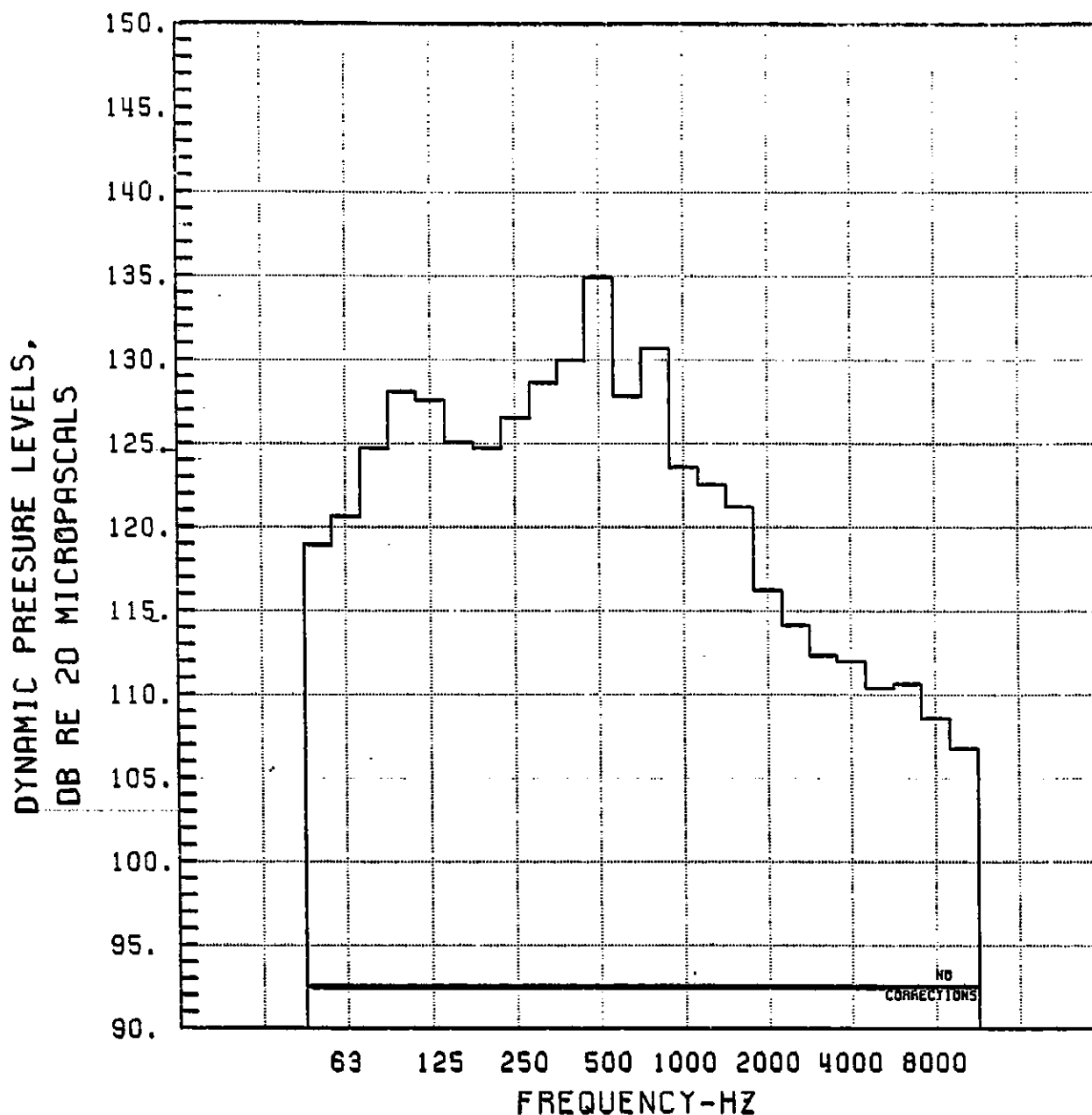
INLET PRESS=138.8 KPA(20.1 PSIA), COMB EXIT TEMP=760.3 DEG C(1400.5 DEG F)

AIR FLOW= 1.91 KG/SEC(4.22*/SEC), FUEL FLOW=134.0 KG/HR(295.5 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 2. GROUP NUMBER: IV

RUN NUMBER: 232



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

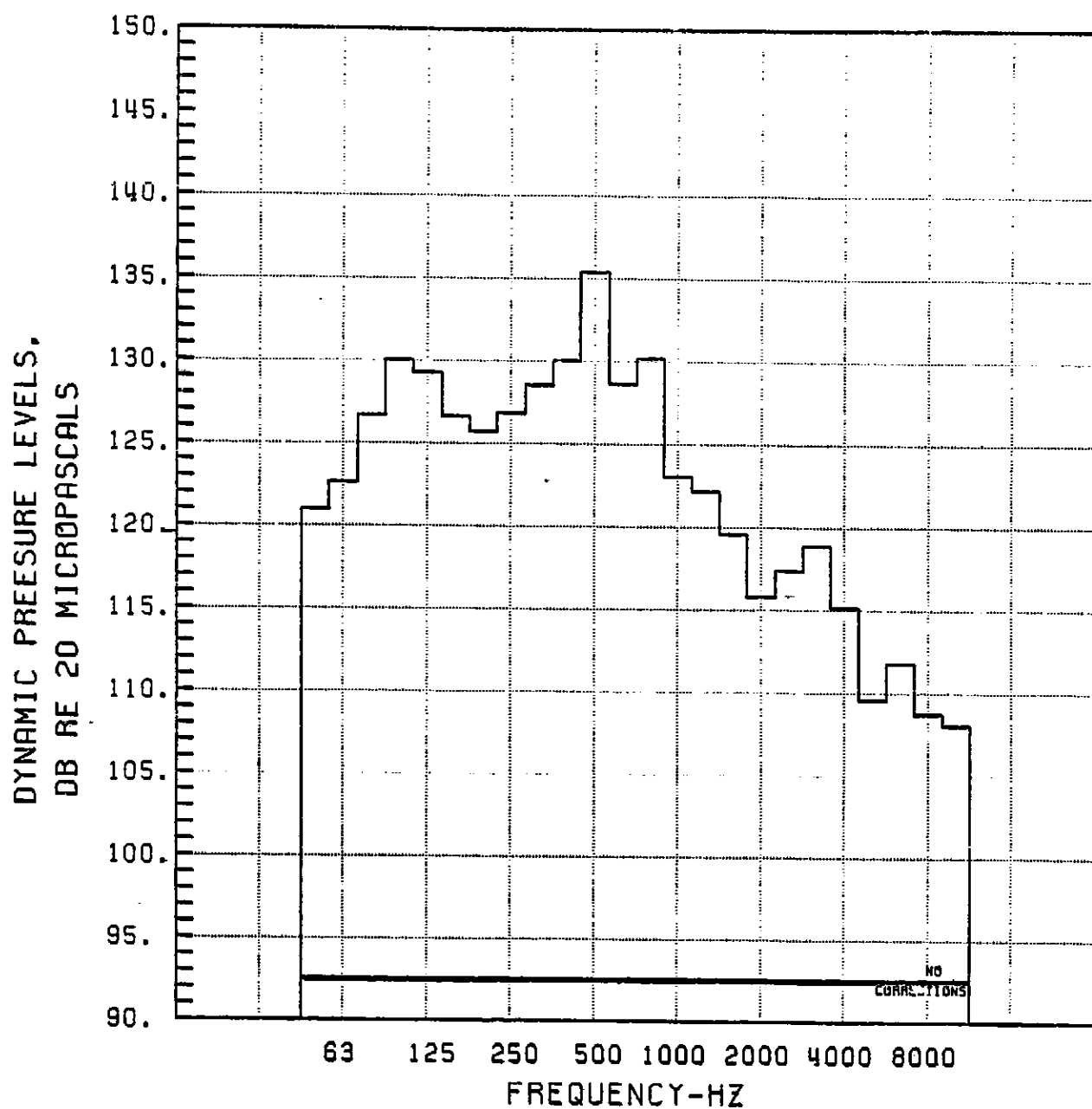
INLET PRESS=138.8 KPA (20.1 PSIA), COMB EXIT TEMP=760.3 DEG C (1400.5 DEG F)

AIR FLOW= 1.91 KG/SEC (4.22#/SEC), FUEL FLOW=134.0 KG/HR (295.5 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 3. GROUP NUMBER: IV

RUN NUMBER: 232



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

INLET PRESS=138.8 KPA(20.1 PSIA), COMB EXIT TEMP=760.3 DEG C(1400.5 DEG F)

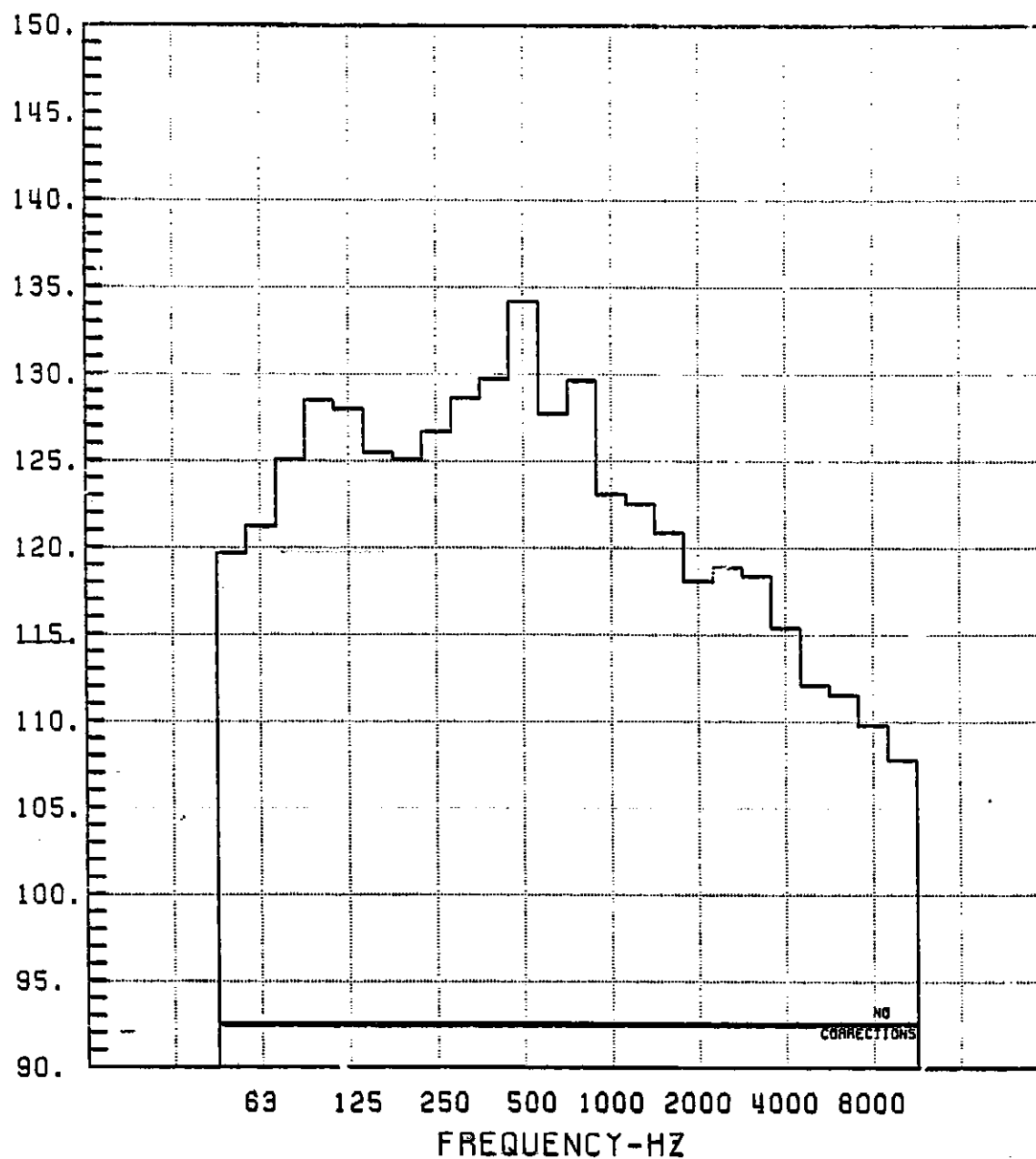
AIR FLOW= 1.91 KG/SEC(4.22*/SEC), FUEL FLOW=134.0 KG/HR(295.5 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 4. GROUP NUMBER: IV

RUN NUMBER: 232

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

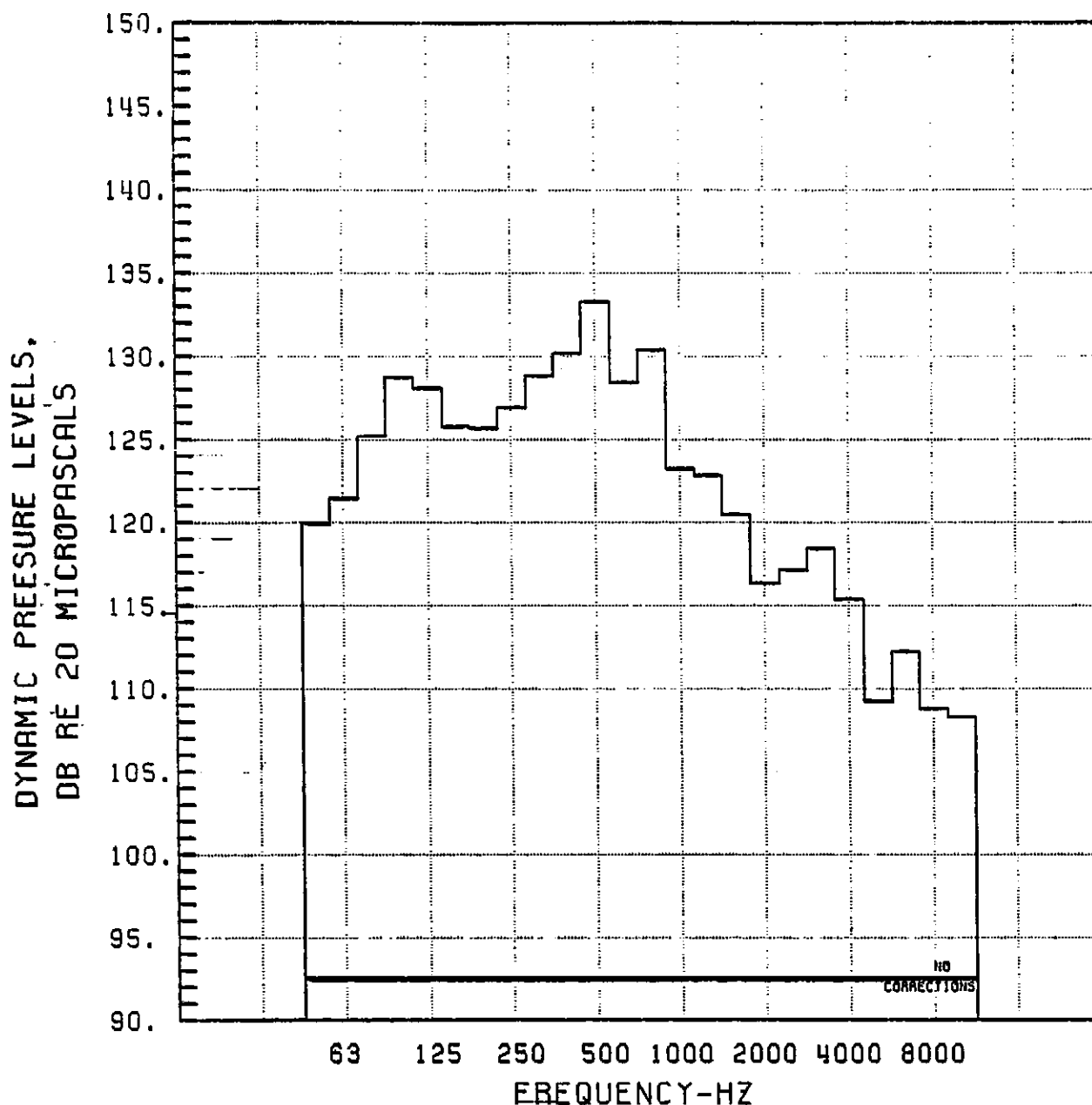
INLET PRESS=138.8 KPA(20.1 PSIA), COMB EXIT TEMP=760.3 DEG C(1400.5 DEG F)

AIR FLOW= 1.91 KG/SEC(4.22#/SEC), FUEL FLOW=134.0 KG/HR(295.5 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 5. GROUP NUMBER: IV

RUN NUMBER: 232



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

INLET PRESS=138.8 KPA(20.1 PSIA), COMB EXIT TEMP=760.3 DEG C(1400.5 DEG F)

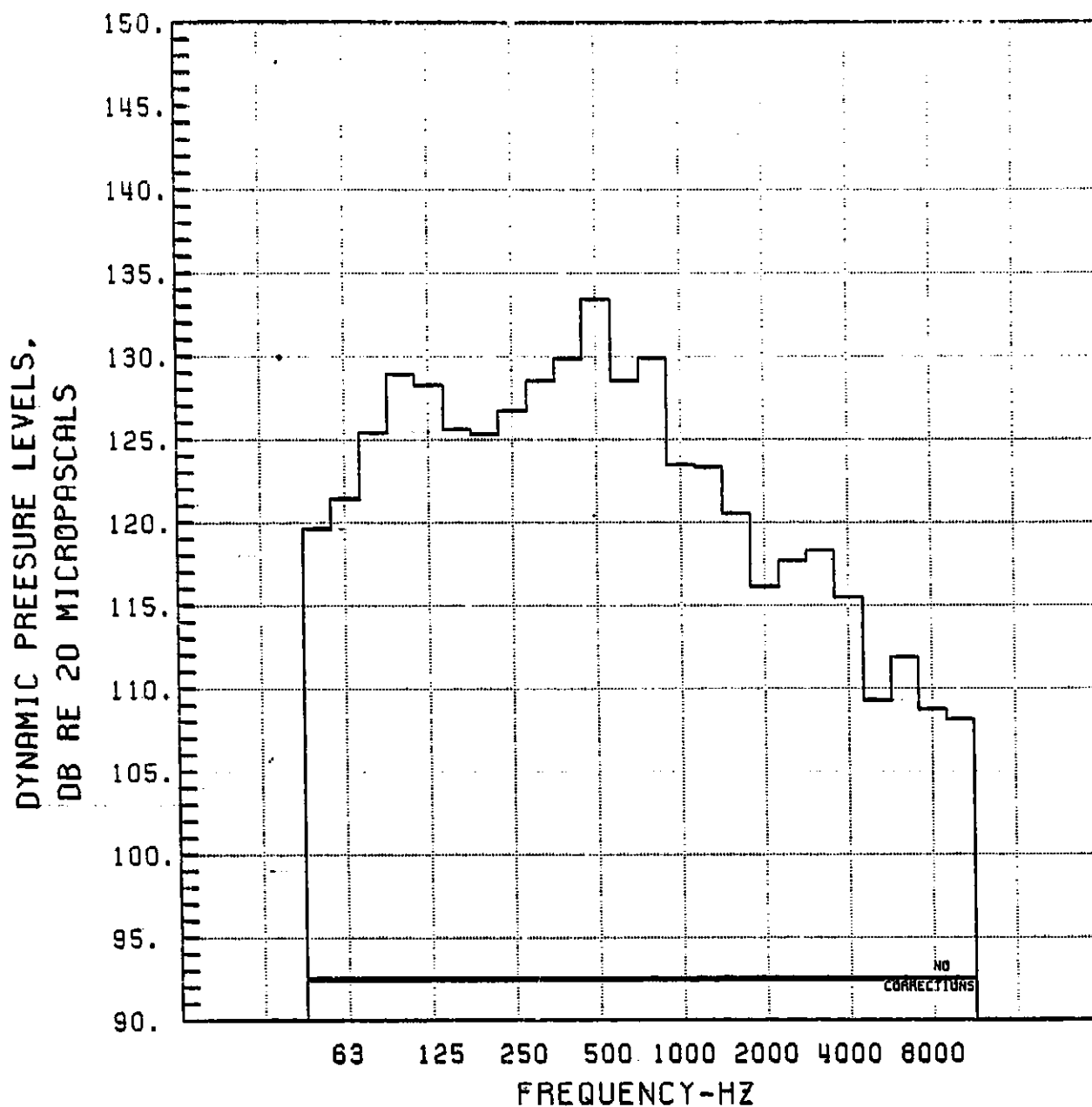
AIR FLOW= 1.91 KG/SEC(4.22*/SEC), FUEL FLOW=134.0 KG/HR(295.5 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 6.

GROUP NUMBER: IV

RUN NUMBER: 232



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

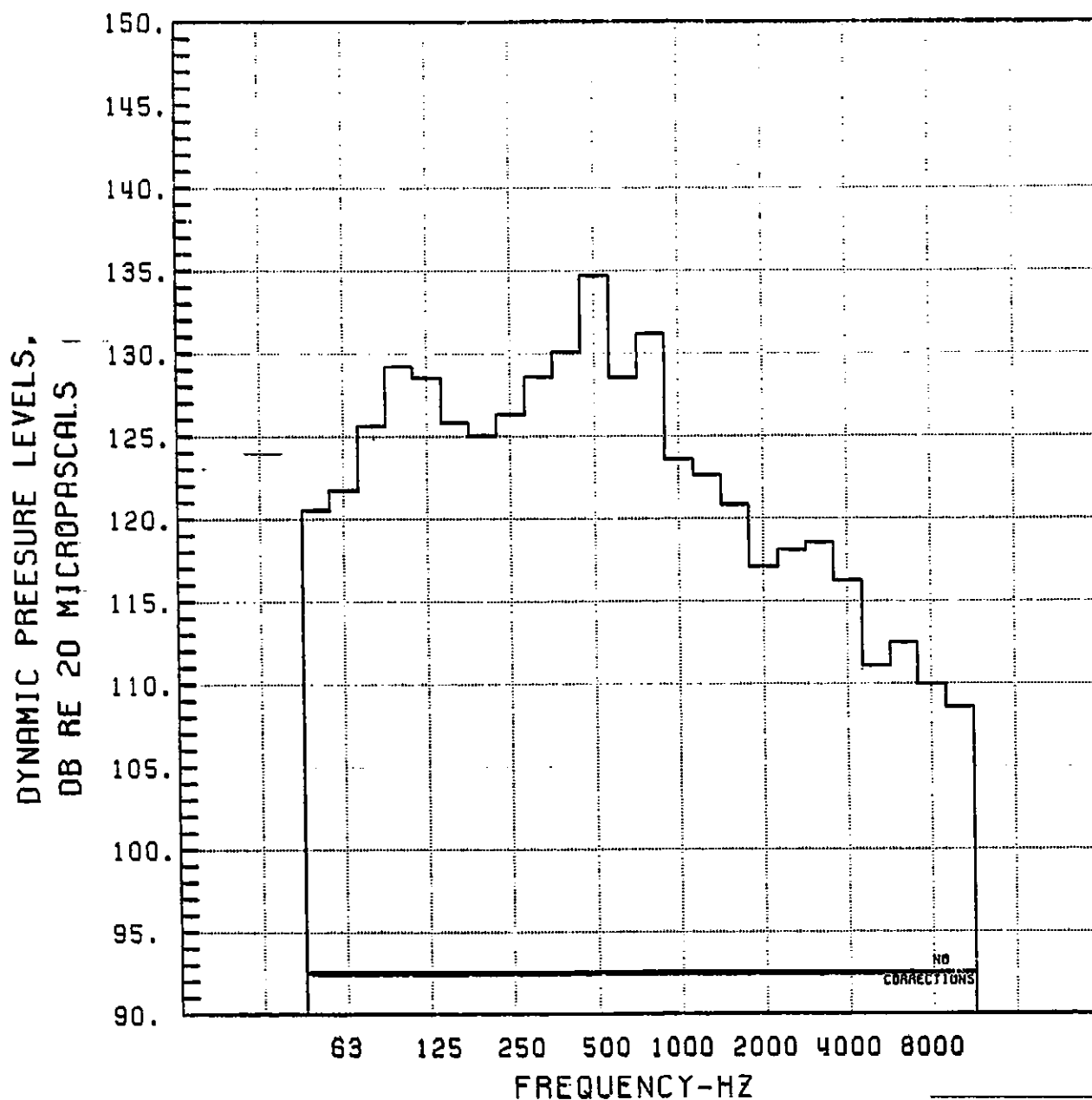
INLET PRESS=138.8 KPA(20.1 PSIA), COMB EXIT TEMP=760.3 DEG C(1400.5 DEG F)

AIR FLOW= 1.91 KG/SEC(4.22#/SEC), FUEL FLOW=134.0 KG/HR(295.5 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 7. GROUP NUMBER: IV

RUN NUMBER: 232



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STAMFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

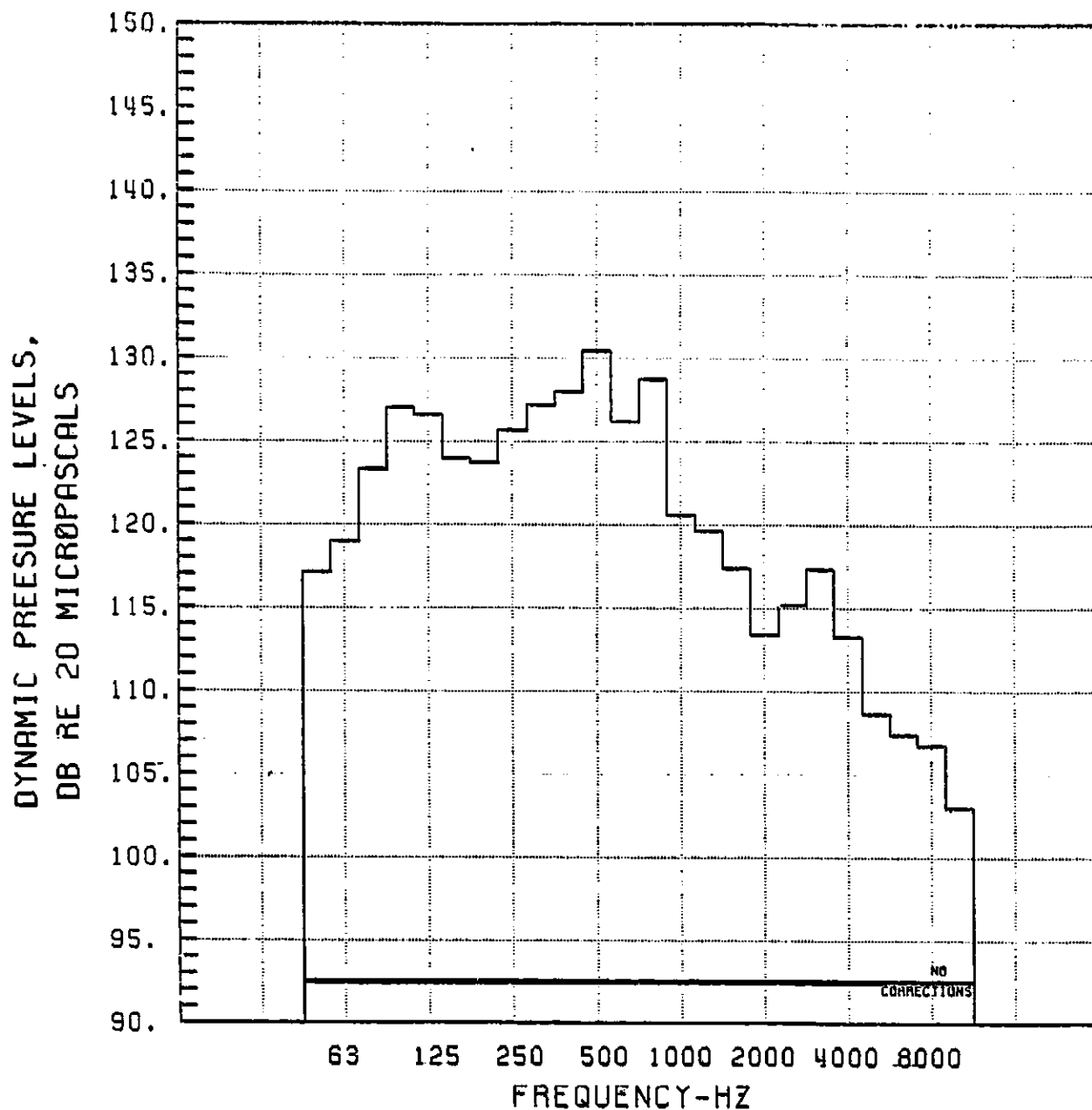
INLET PRESS=138.8 KPA(20.1 PSIA), COMB EXIT TEMP=760.3 DEG C(1400.5 DEG F)

AIR FLOW= 1.91 KG/SEC(4.22#/SEC), FUEL FLOW=134.0 KG/HR(295.5 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 8. GROUP NUMBER: IV

RUN NUMBER: 232



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

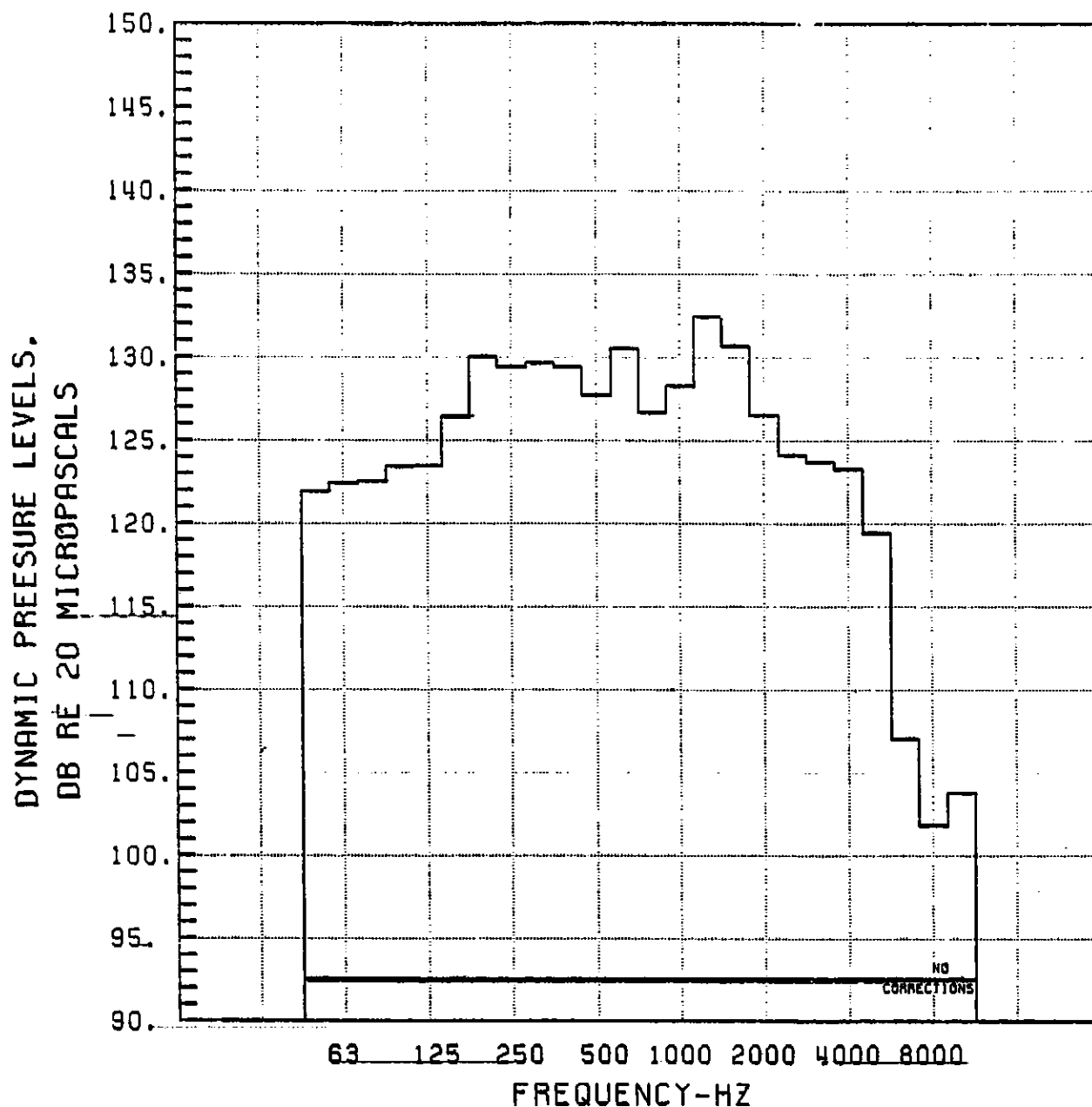
INLET PRESS=138.8 KPA(20.1 PSIA), COMB EXIT TEMP=760.3 DEG C(1400.5 DEG F)

AIR FLOW= 1.91 KG/SEC(4.22#/SEC), FUEL FLOW=134.0 KG/HR(295.5 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 9, GROUP NUMBER: IV

RUN NUMBER: 232



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

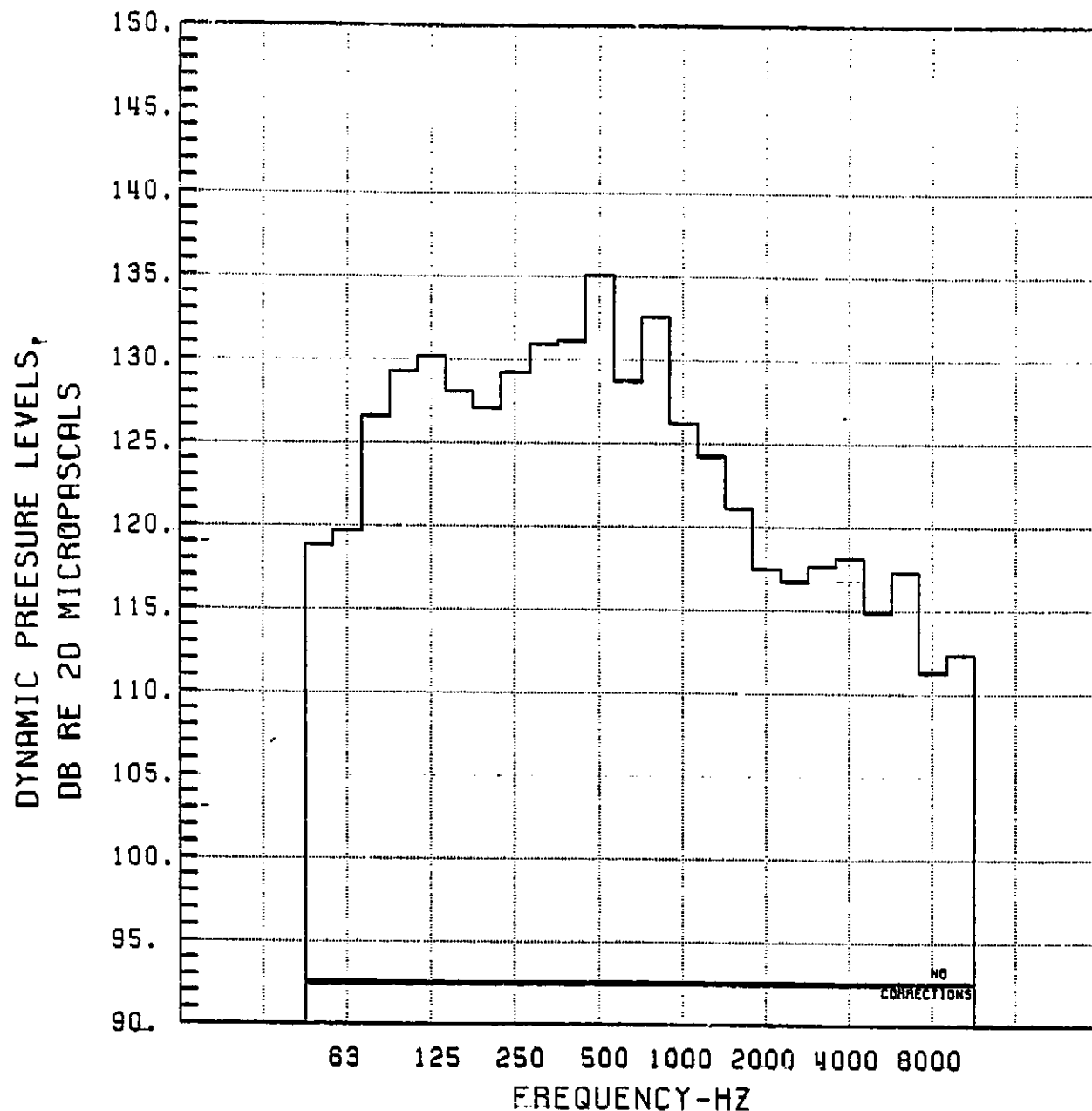
INLET PRESS=138.8 KPA(20.1 PSIA), COMB EXIT TEMP=760.3 DEG C(1400.5 DEG F)

AIR FLOW= 1.91 KG/SEC(4.22*/SEC), FUEL FLOW=134.0 KG/HR(295.5 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 10. GROUP NUMBER: IV

RUN NUMBER: 232



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

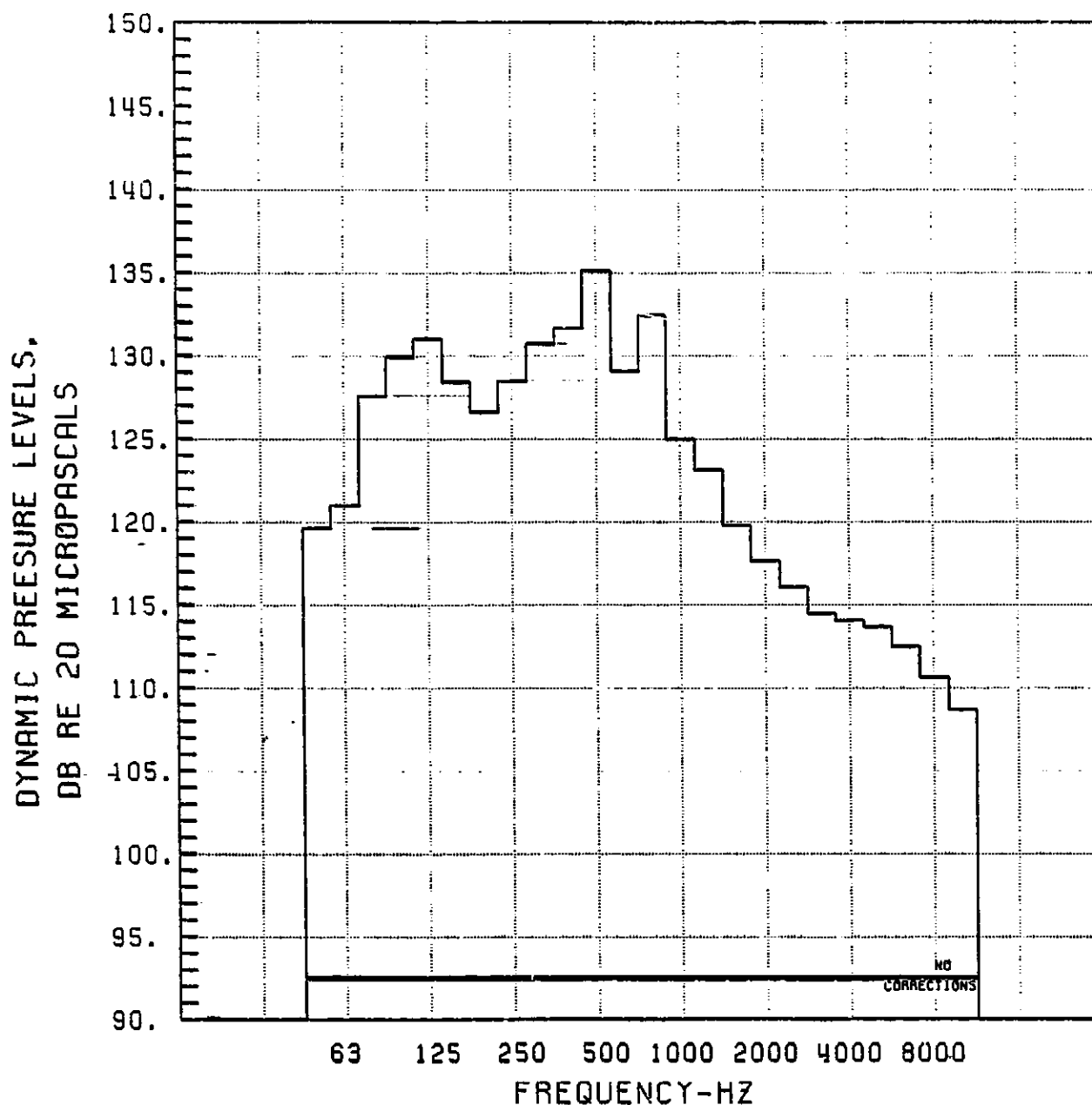
INLET PRESS=186.9 KPA(27.1 PSIA), COMB EX11 TEMP=743.4 DEG C(1370.0 DEG F)

AIR FLOW= 2.42 KG/SEC(5.3 */SEC), FUEL FLOW=149.1 KG/HR(328.6 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 2. GROUP NUMBER: IV

RUN NUMBER: 233



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

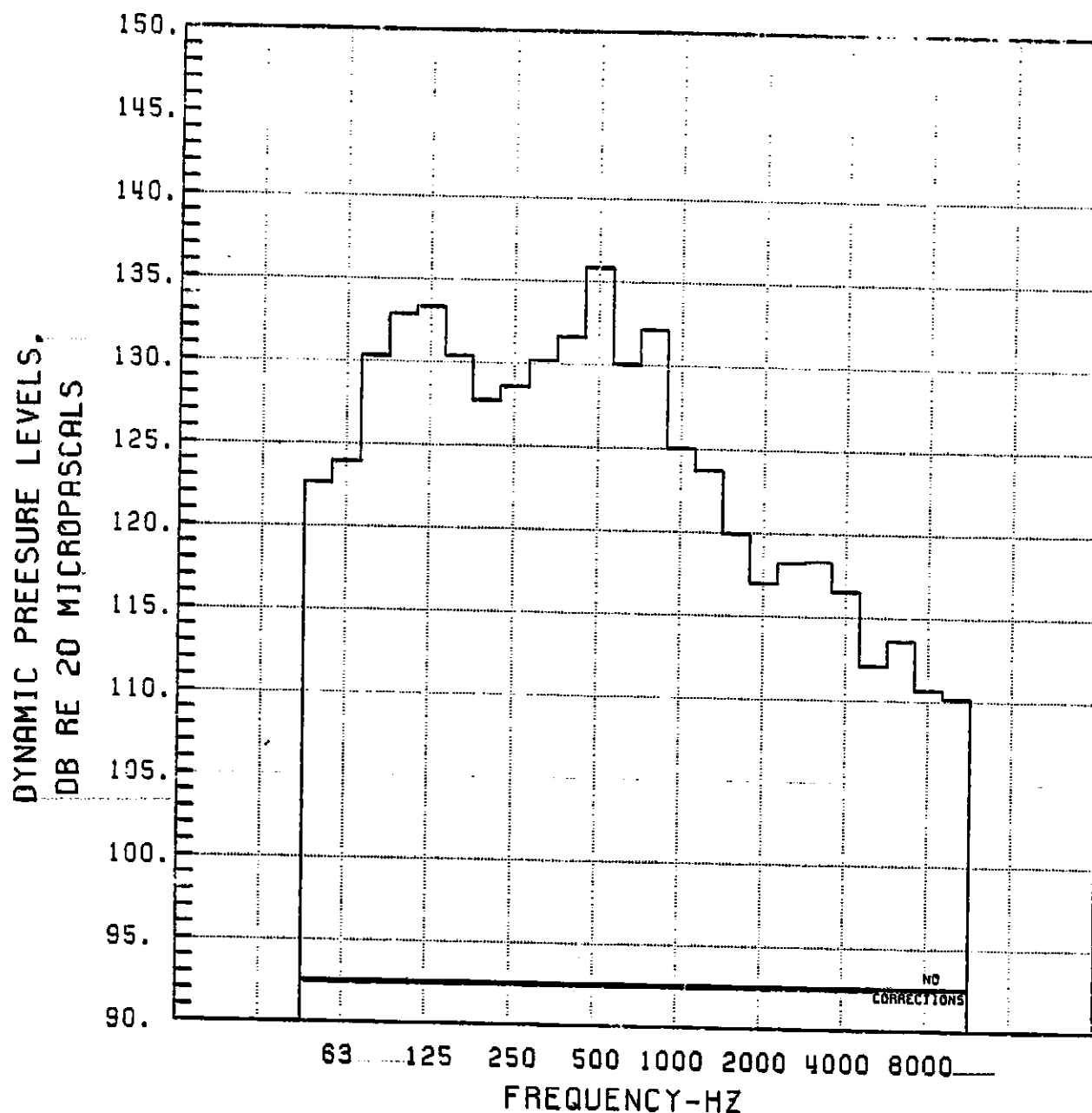
INLET PRESS=186.9 KPA(27.1 PSIA), COMB EXIT TEMP=743.4 DEG C(1370.0 DEG F)

AIR FLOW= 2.42 KG/SEC(5.3 #/SEC), FUEL FLOW=149.1 KG/HR(328.6 #/HR)

TEST DATE: FEB. 22, 1981

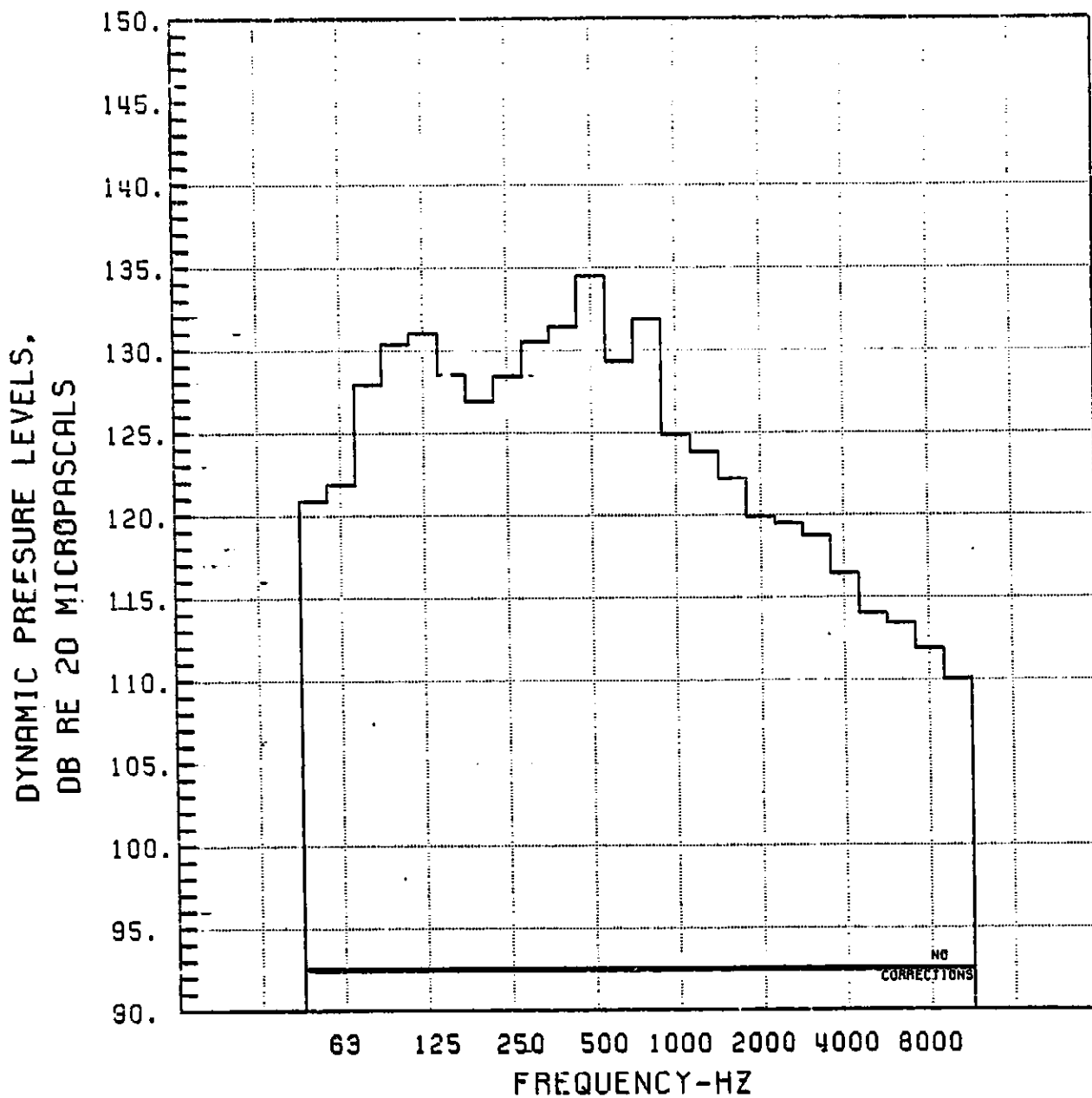
PROBE NUMBER: 3. GROUP NUMBER: IV

RUN NUMBER: 233



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED
INLET PRESS=186.9 KPA(27.1 PSIA), COMB EXIT TEMP=743.4 DEG C(1370.0 DEG F)
AIR FLOW= 2.42 KG/SEC(5.3 #/SEC), FUEL FLOW=149.1 KG/HR(328.6 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 4. GROUP NUMBER: IV RUN NUMBER: 233



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

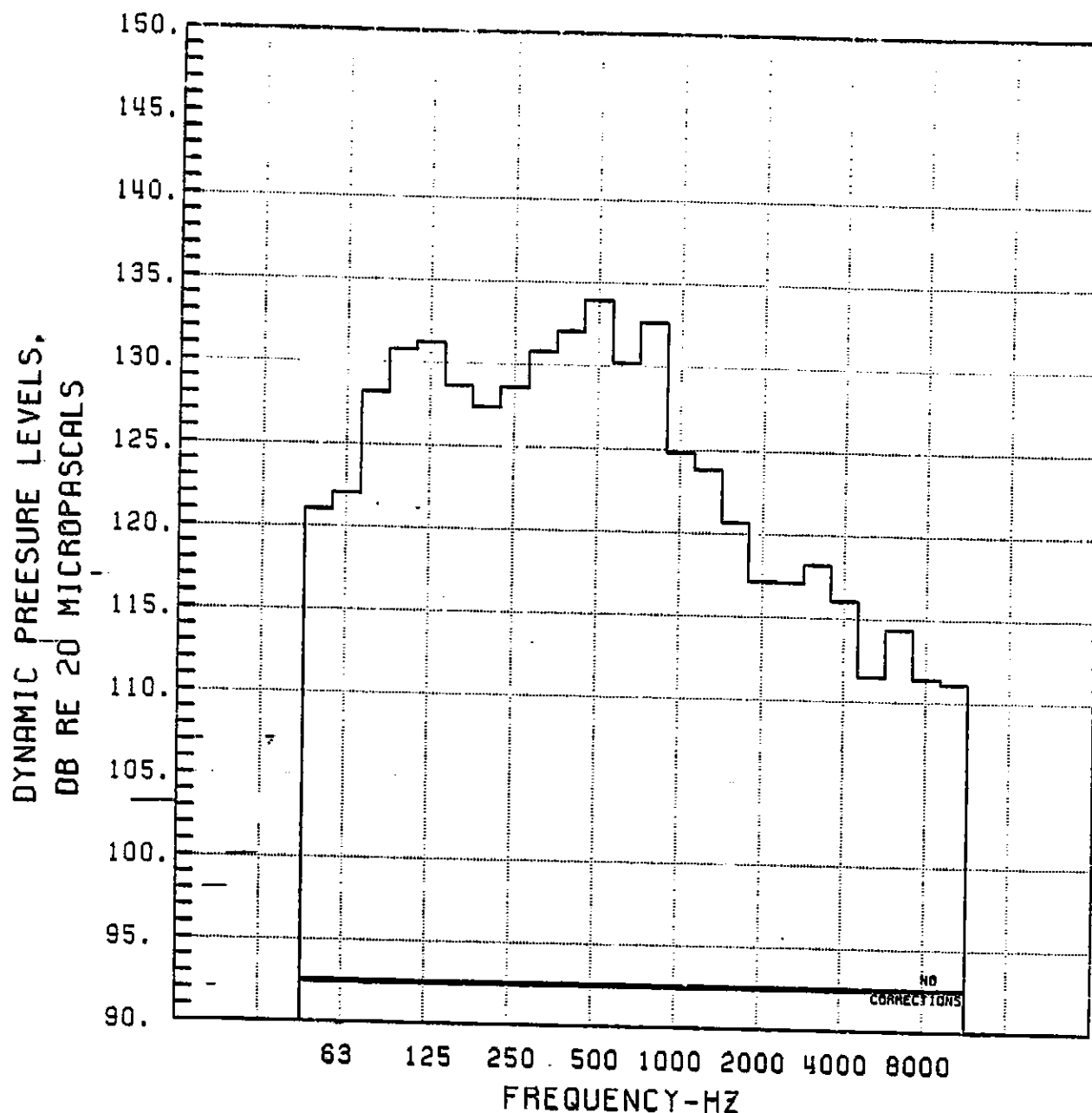
INLET PRESS=186.9 KPA(27.1 PSIA), COMB EXIT TEMP=743.4 DEG C(1370.0 DEG F)

AIR FLOW= 2.42 KG/SEC(5.3 #/SEC), FUEL FLOW=149.1 KG/HRI 328.6 #/HRI

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 5, GROUP NUMBER: IV

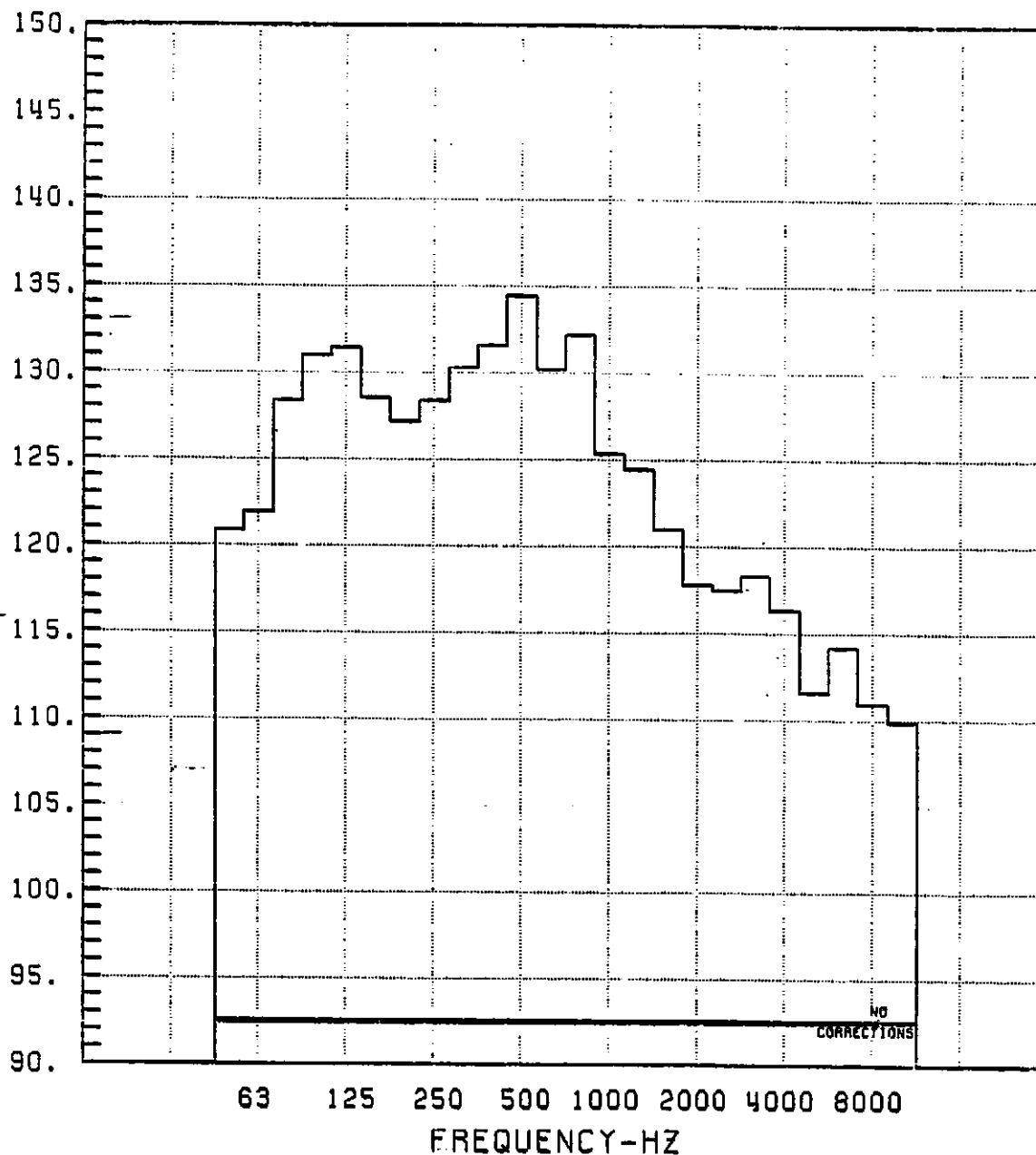
RUN NUMBER: 23C



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

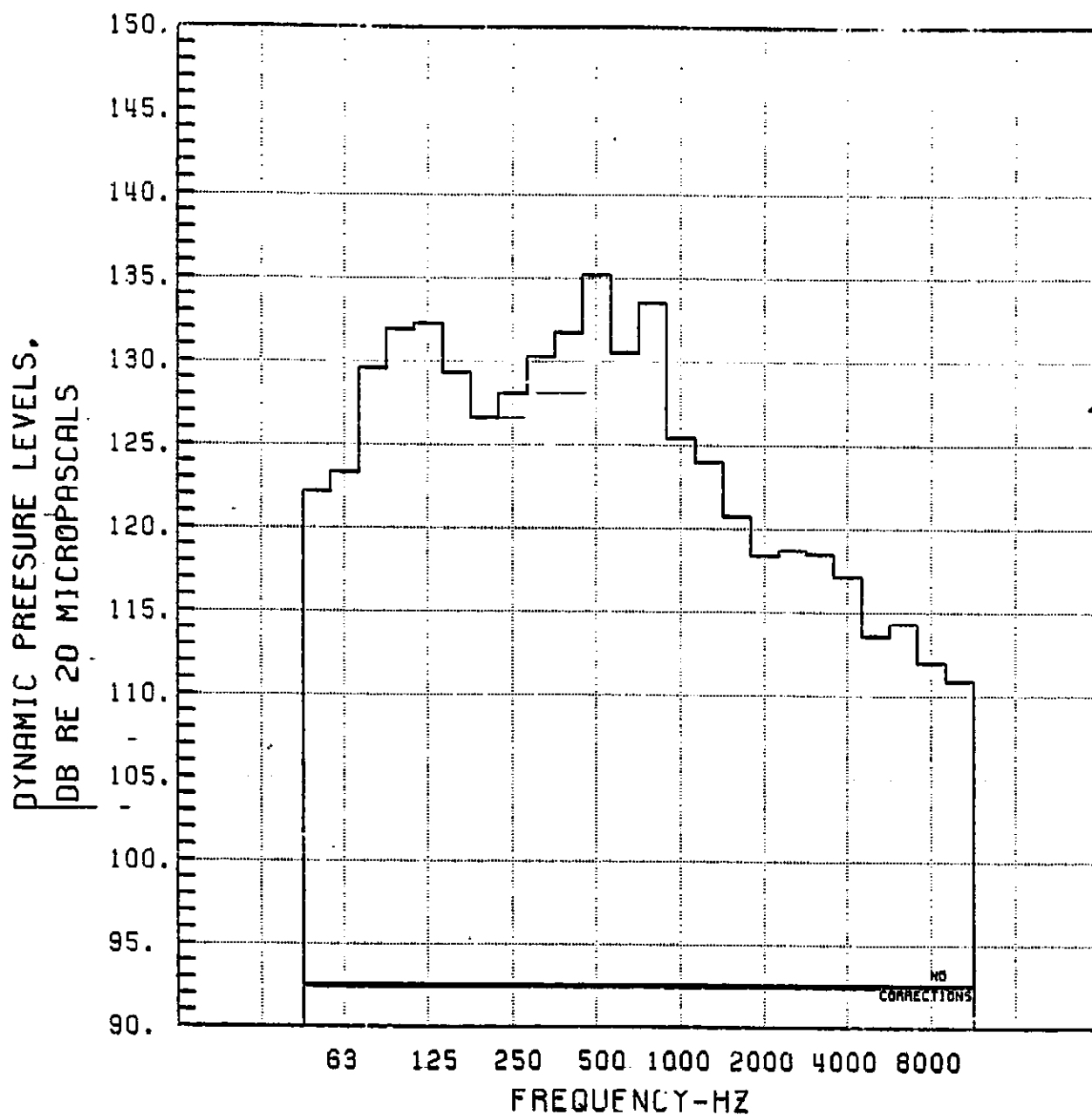
TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED
INLET PRESS=186.9 KPA(27.1 PSIA), COMB EXIT TEMP=743.4 DEG C(1370.0 DEG F)
AIR FLOW= 2.42 KG/SEC(5.3 #/SEC), FUEL FLOW=149.1 KG/HR(328.6 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 6. GROUP NUMBER: IV RUN NUMBER: 233

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED
INLET PRESS=186.9 KPA(27.1 PSIA), COMB EXIT TEMP=743.4 DEG C(1370.0 DEG F)
AIR FLOW= 2.42 KG/SEC(5.3 #/SEC), FUEL FLOW=149.1 KG/HR(328.6 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 7. GROUP NUMBER: IV RUN NUMBER: 233



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: TF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

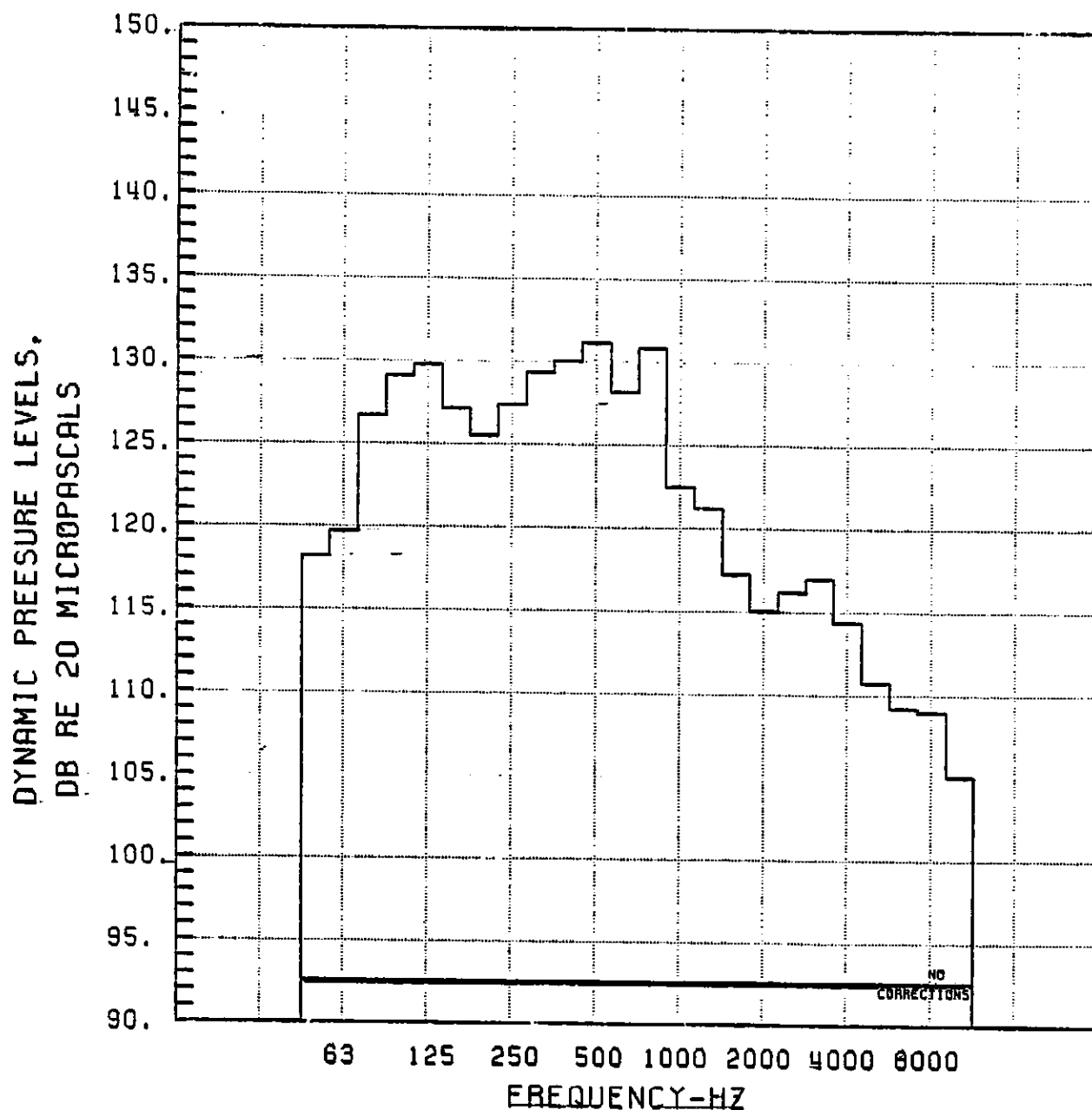
INLET PRESS=186.9 KPA(27.1 PSIA), COMB EXIT TEMP=743.4 DEG C(1370.0 DEG F)

AIR FLOW= 2.42 KG/SEC(5.3 #/SEC), FUEL FLOW=149.1 KG/HR(328.6 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 8. GROUP NUMBER: IV

RUN NUMBER: 233



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: TF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

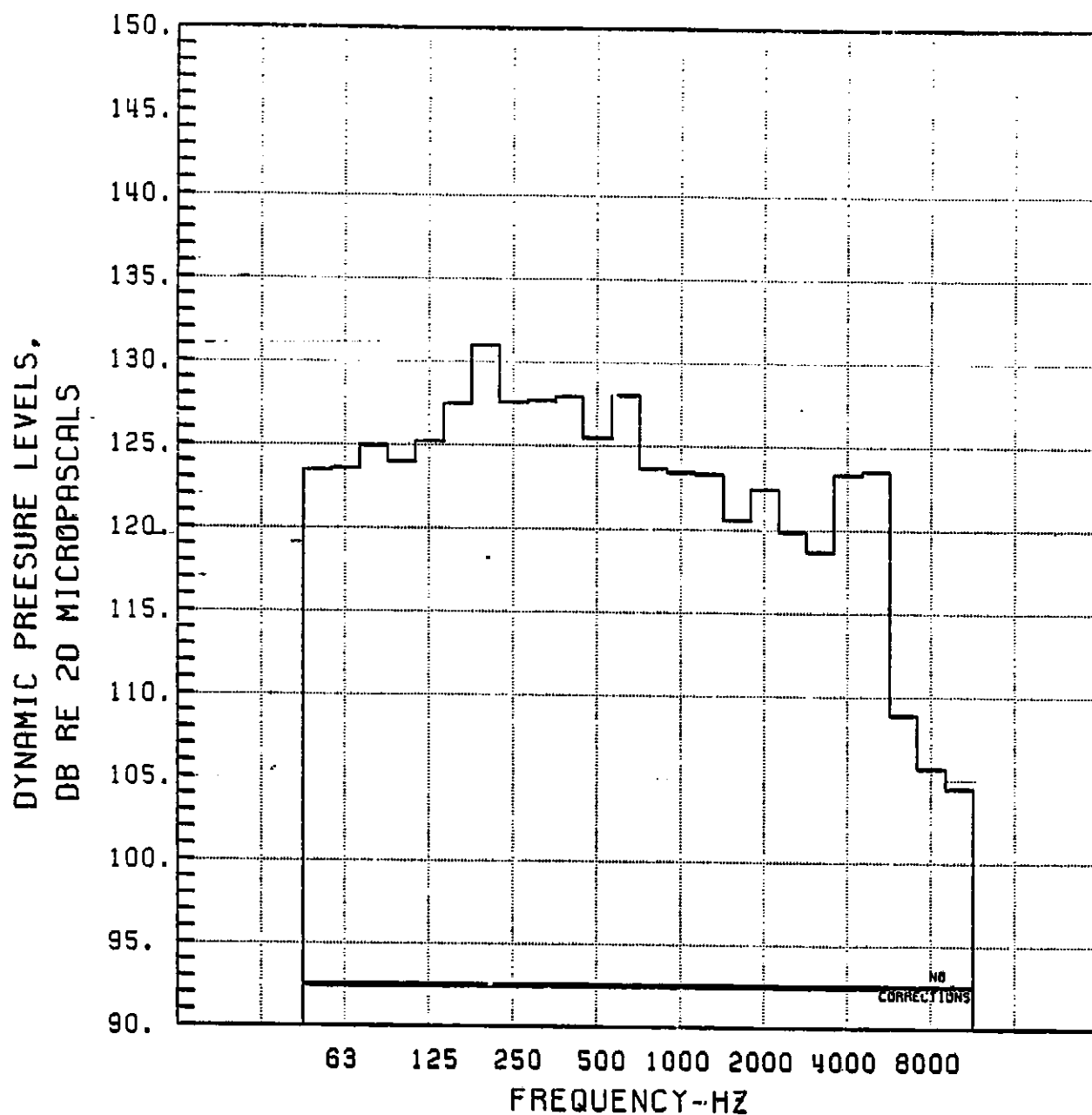
INLET PRESS=186.9 KPA(27.1 PSIA), COMB EXIT TEMP=743.4 DEG C(1370.0 DEG F)

AIR FLOW= 2.42 KG/SEC(5.3 #/SEC), FUEL FLOW=149.1 KG/HR(328.6 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 9. GROUP NUMBER: IV

RUN NUMBER: 233



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

INLET PRESS=186.9 KPA(27.1 PSIA), COMB EXIT TEMP=743.4 DEG C(1370.0 DEG F)

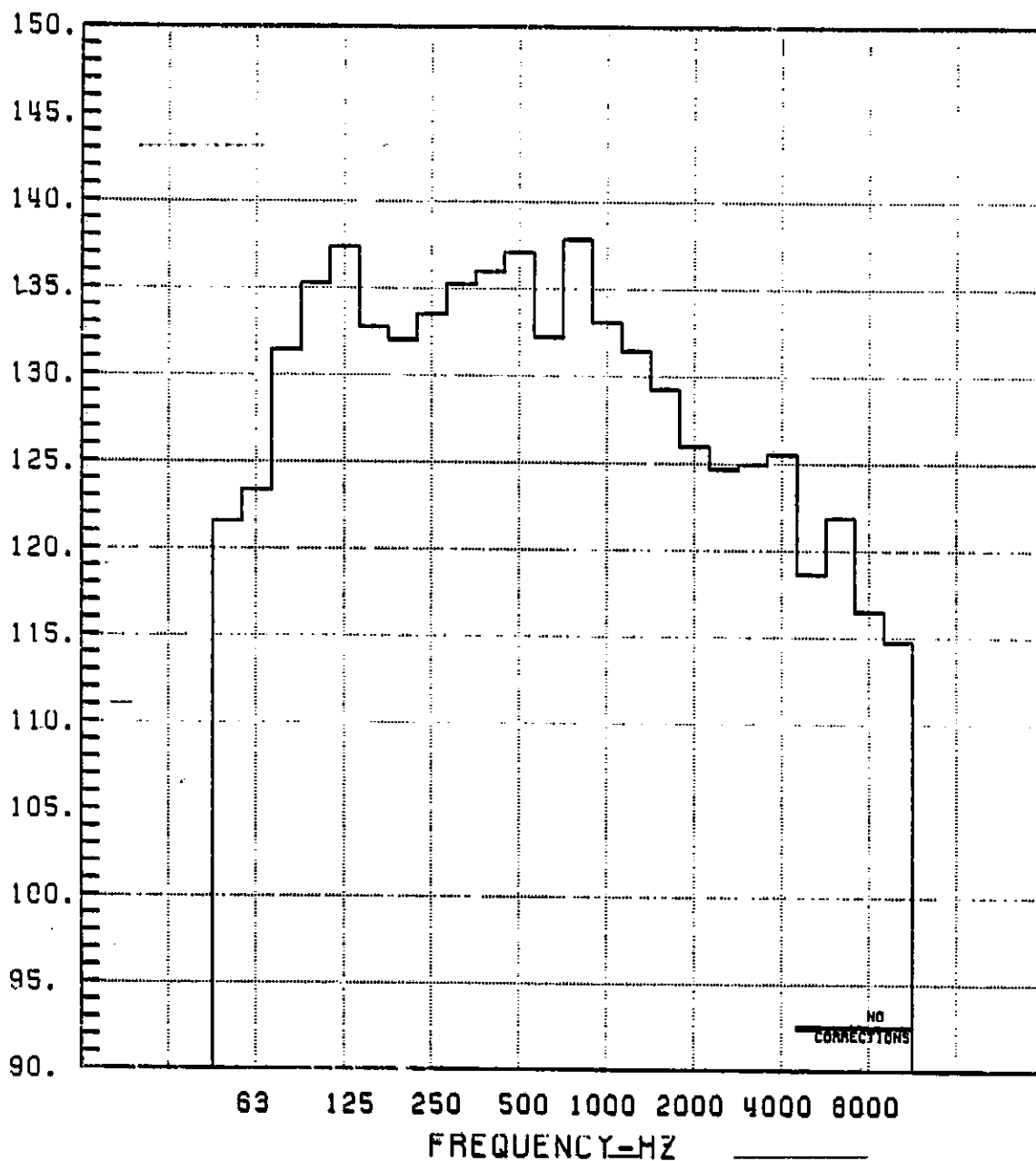
AIR FLOW= 2.42 KG/SEC(5.3 #/SEC), FUEL FLOW=149.1 KG/HR(328.6 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 10. GROUP NUMBER: IV

RUN NUMBER: 233

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

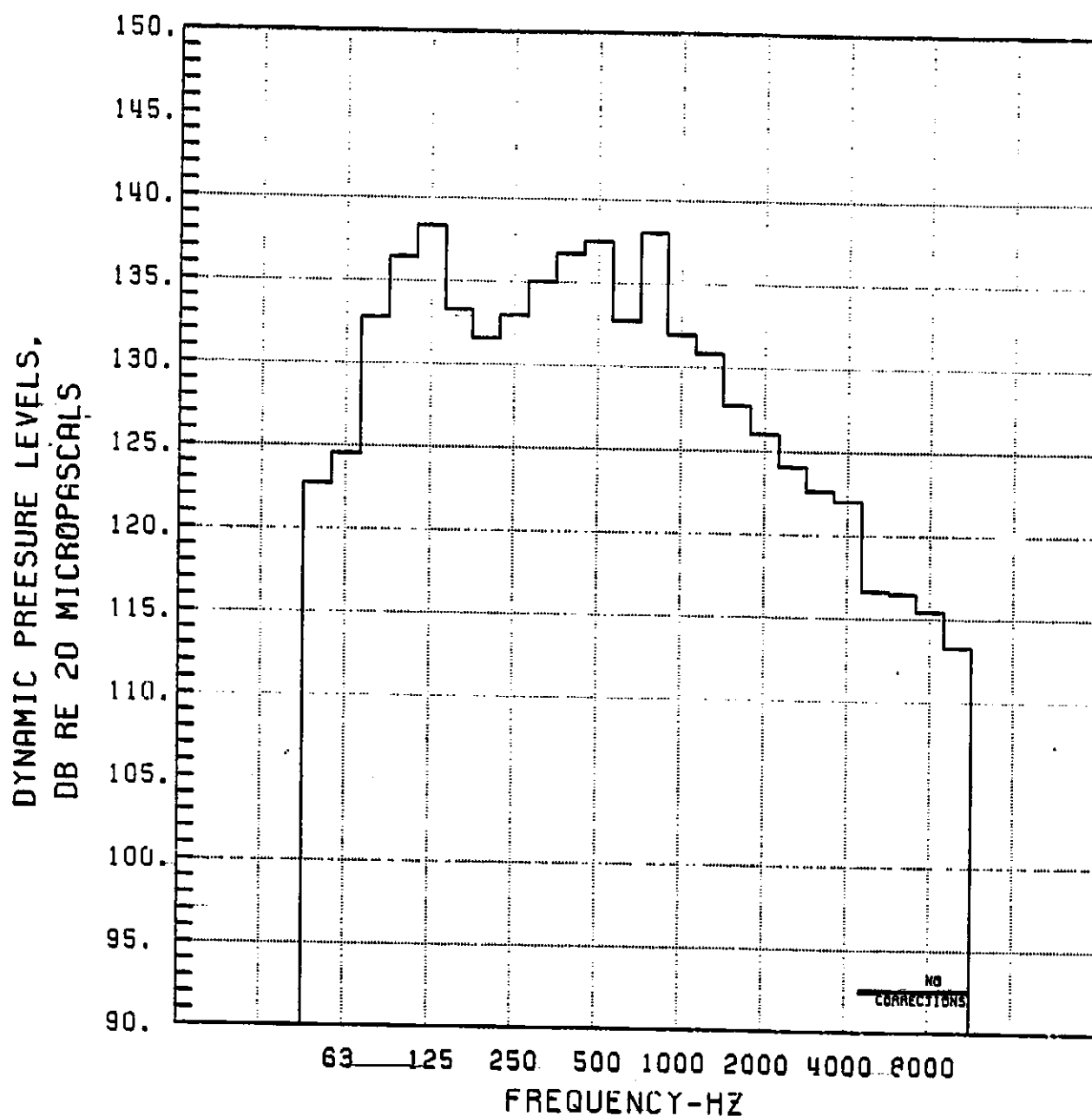
INLET PRESS=256.7 KPA(37.2 PSIA), COMB EXIT TEMP=751.8 DEG C(1385.3 DEG F)

AIR FLOW= 3.45 KG/SEC(7.60 #/SEC), FUEL FLOW=201.3 KG/HR(443.7 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 2. GROUP NUMBER: IV

RUN NUMBER: 202



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

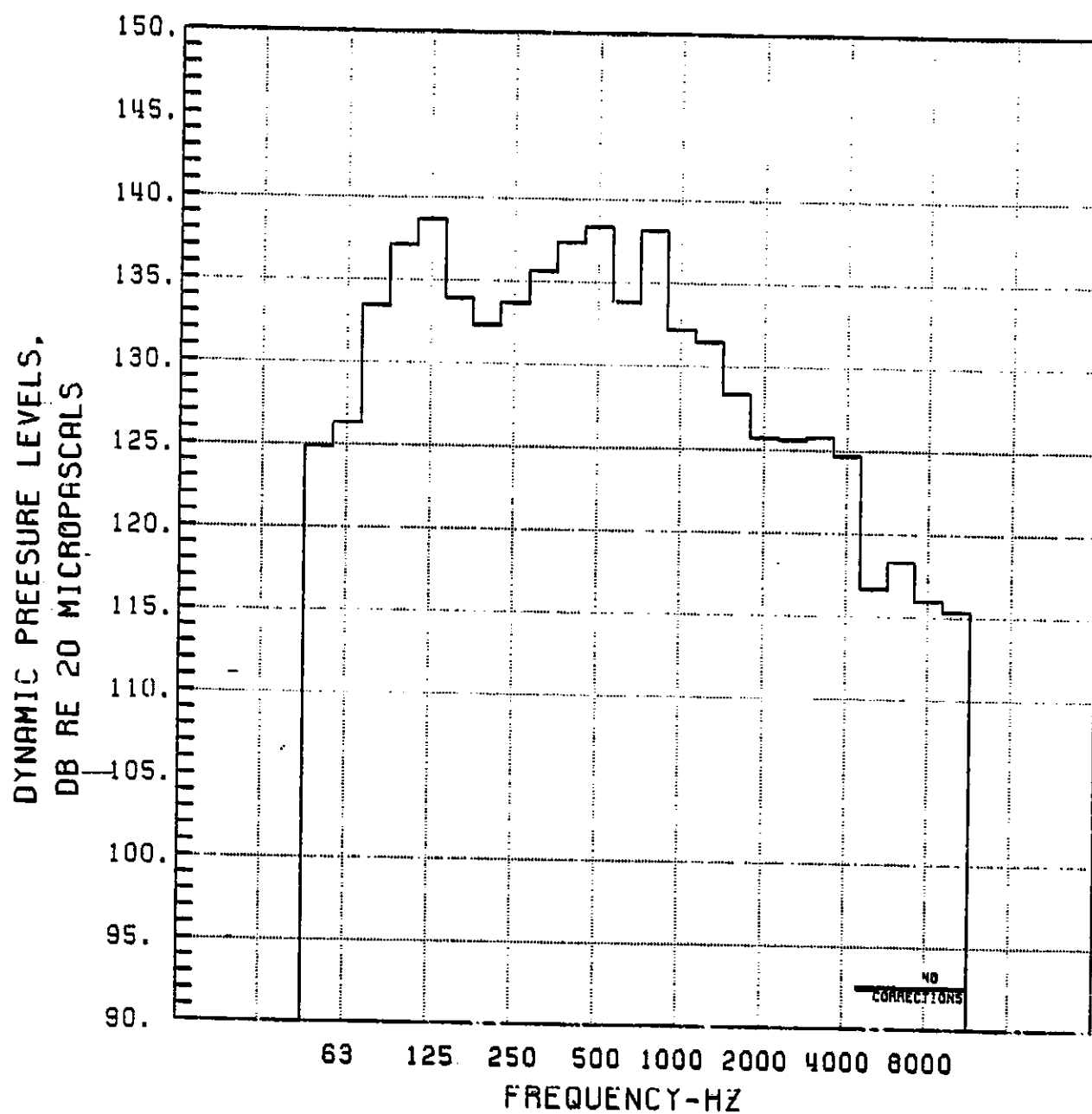
INLET PRESS=256.7 KPA(37.2 PSIA), COMB EXIT TEMP=751.8 DEG C(1385.3 DEG F)

AIR FLOW= 3.45 KG/SEC(7.60 #/SEC), FUEL FLOW=201.3 KG/HR(43.7 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 3. GROUP NUMBER: IV

RUN NUMBER: 202



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

INLET PRESS=256.7 KPA(37.2 PSIA), COMB EXIT TEMP=751.8 DEG C(1385.3 DEG F)

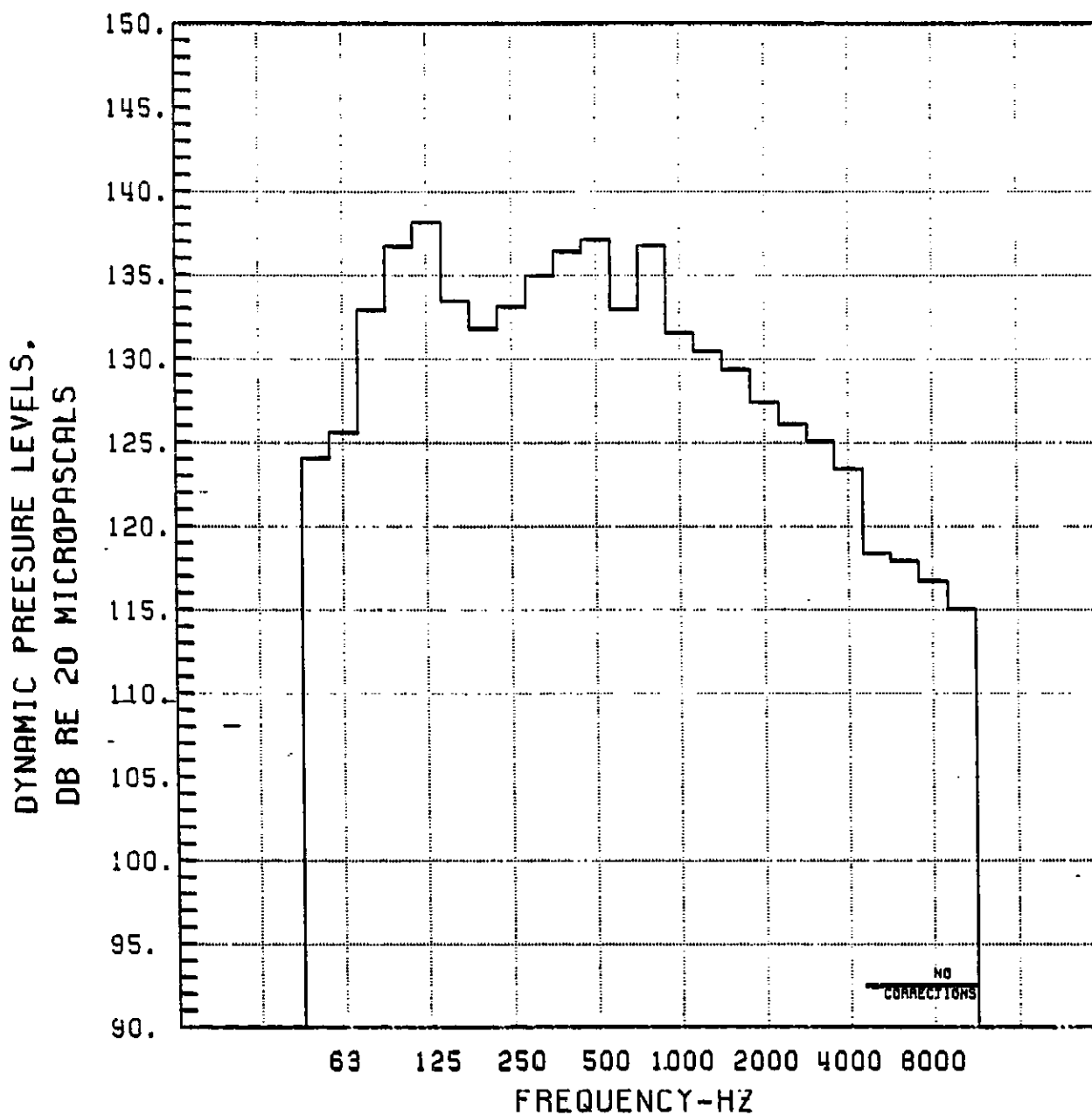
AIR FLOW= 3.45 KG/SEC(7.60 */SEC), FUEL FLOW=201.3 KG/HR(443.7 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 4.

GROUP NUMBER: IV

RUN NUMBER: 202



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

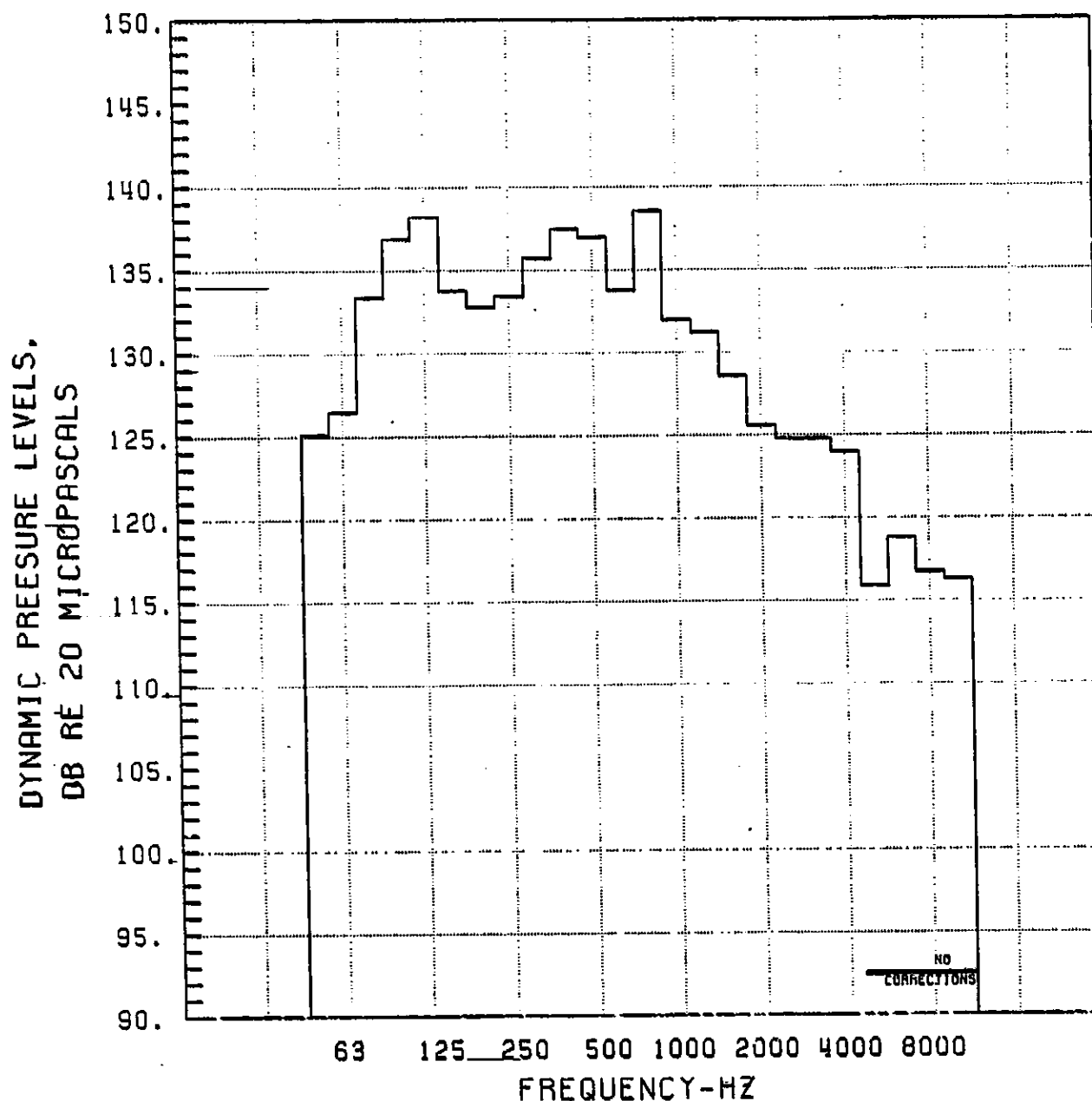
INLET PRESS=256.7 KPA(37.2 PSIA), COMB EXIT TEMP=751.8 DEG C(1385.3 DEG F)

AIR FLOW= 3.45 KG/SEC(7.60 #/SEC), FUEL FLOW=201.3 KG/HR(443.7 #/HR)

TEST DATE: FEB. 22, 1981

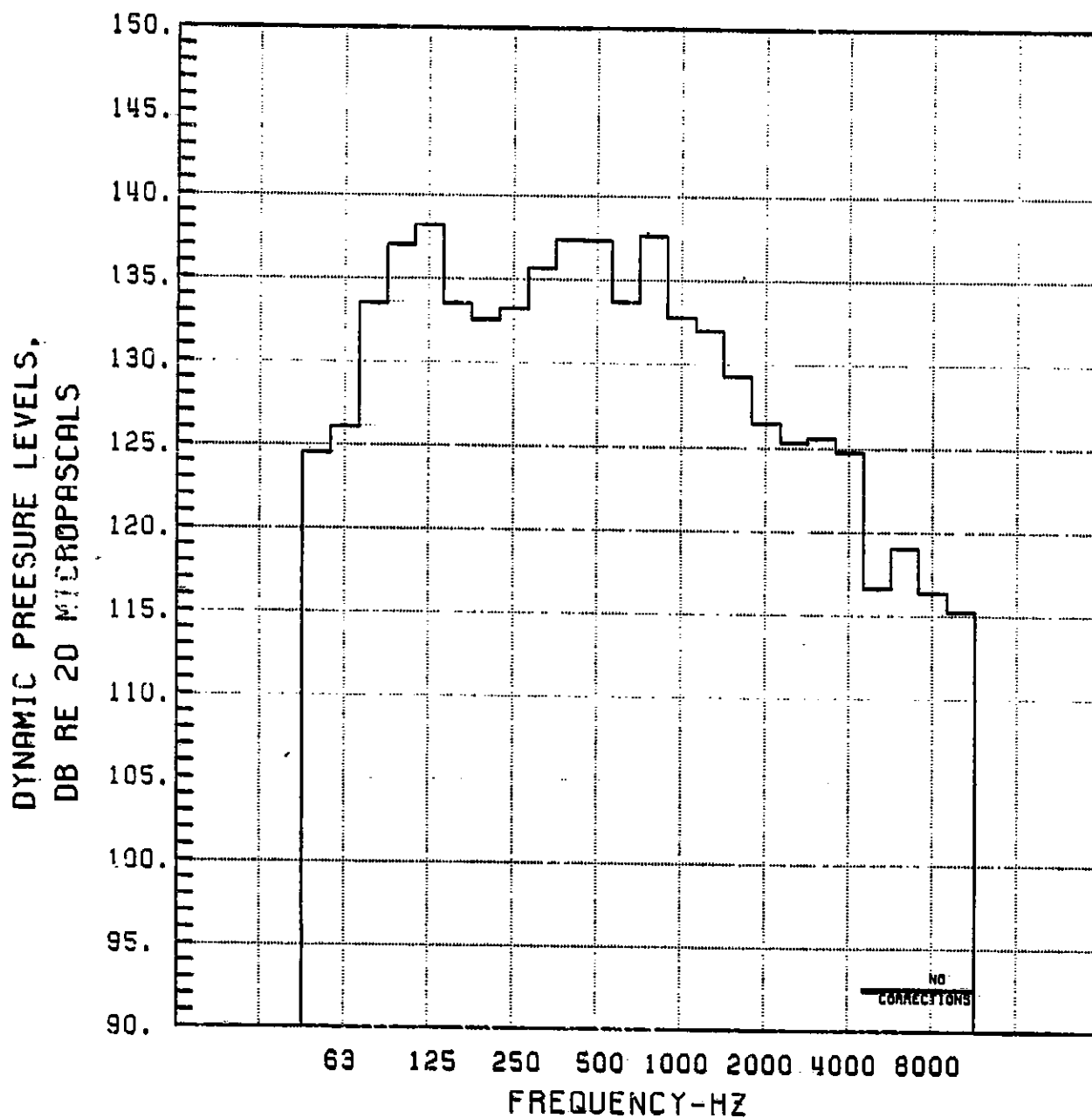
PROBE NUMBER: 5. GROUP NUMBER: IV

RUN NUMBER: 202



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED
INLET PRESS=256.7 KPA(37.2 PSIA), COMB EXIT TEMP=751.8 DEG C(1385.3 DEG F)
AIR FLOW= 3.45 KG/SEC(7.60 */SEC), FUEL FLOW=201.3 KG/HR(443.7 */HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 6. GROUP NUMBER: IV RUN NUMBER: 202



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

INLET PRESS=256.7 KPA(37.2 PSIA), COMB EXIT TEMP=751.8 DEG C(1385.3 DEG F)

AIR FLOW= 3.45 KG/SEC(7.60 */SEC), FUEL FLOW=201.3 KG/HR(443.7 */HR)

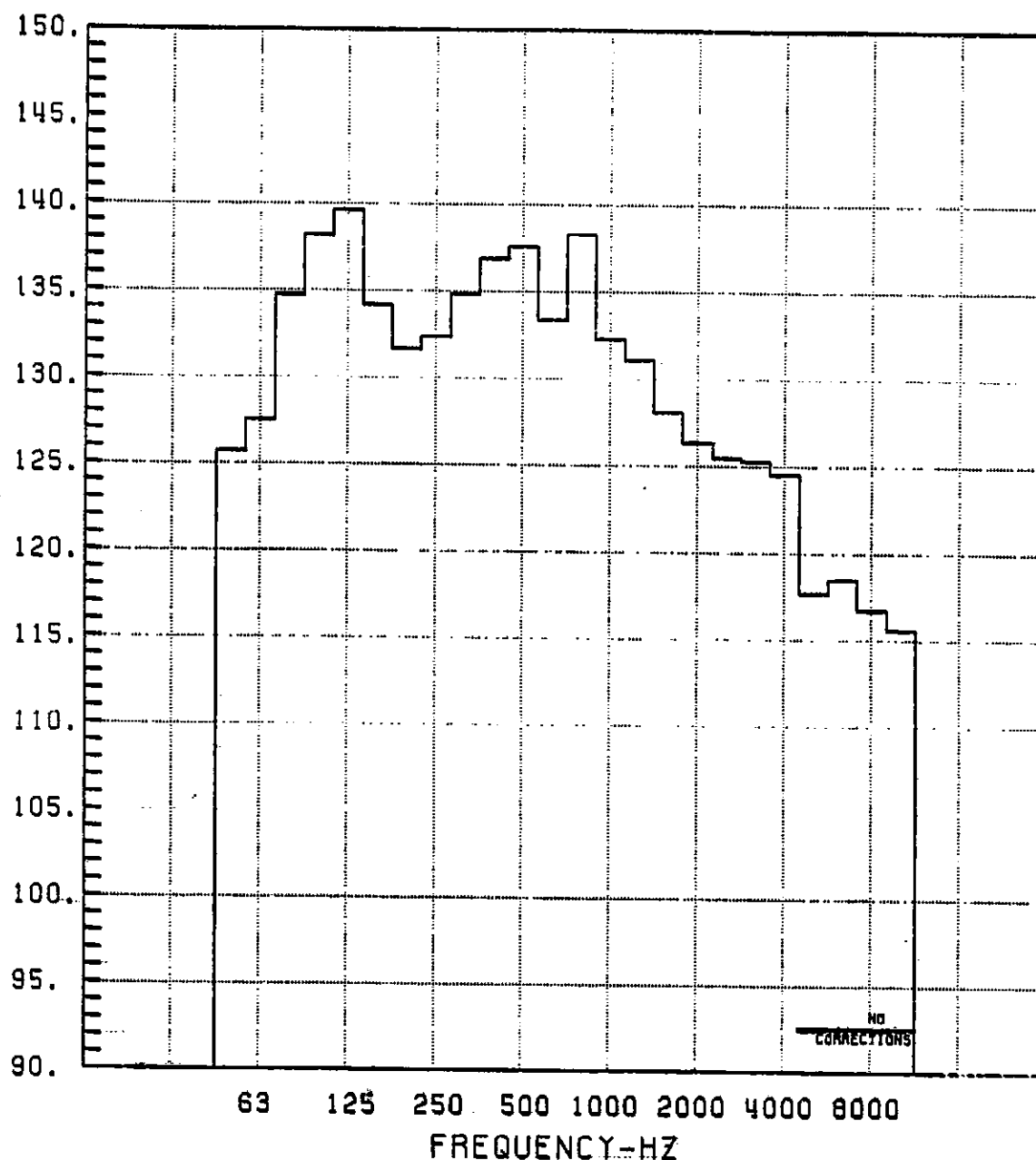
TEST DATE: FEB. 22, 1981

PROBE NUMBER: 7. GROUP NUMBER: IV

RUN NUMBER: 202

2-3

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

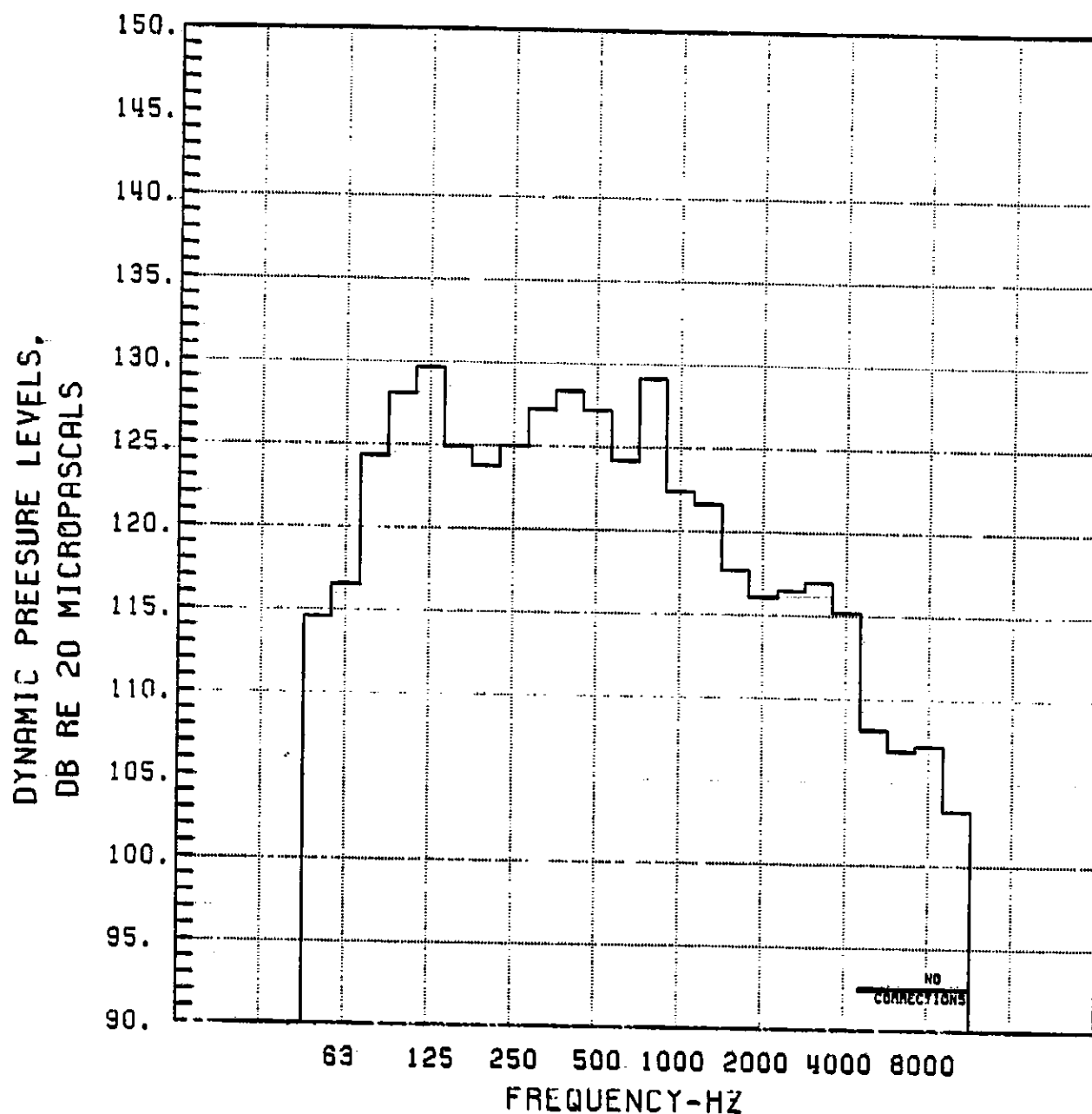
INLET PRESS=256.7 KPA(37.2 PSIA), COMB EXIT TEMP=751.8 DEG C(1385.3 DEG F)

AIR FLOW= 3.45 KG/SEC(7.60 #/SEC), FUEL FLOW=201.3 KG/HR(443.7 #/HR)

TEST DATE: FEB. 22, 1981

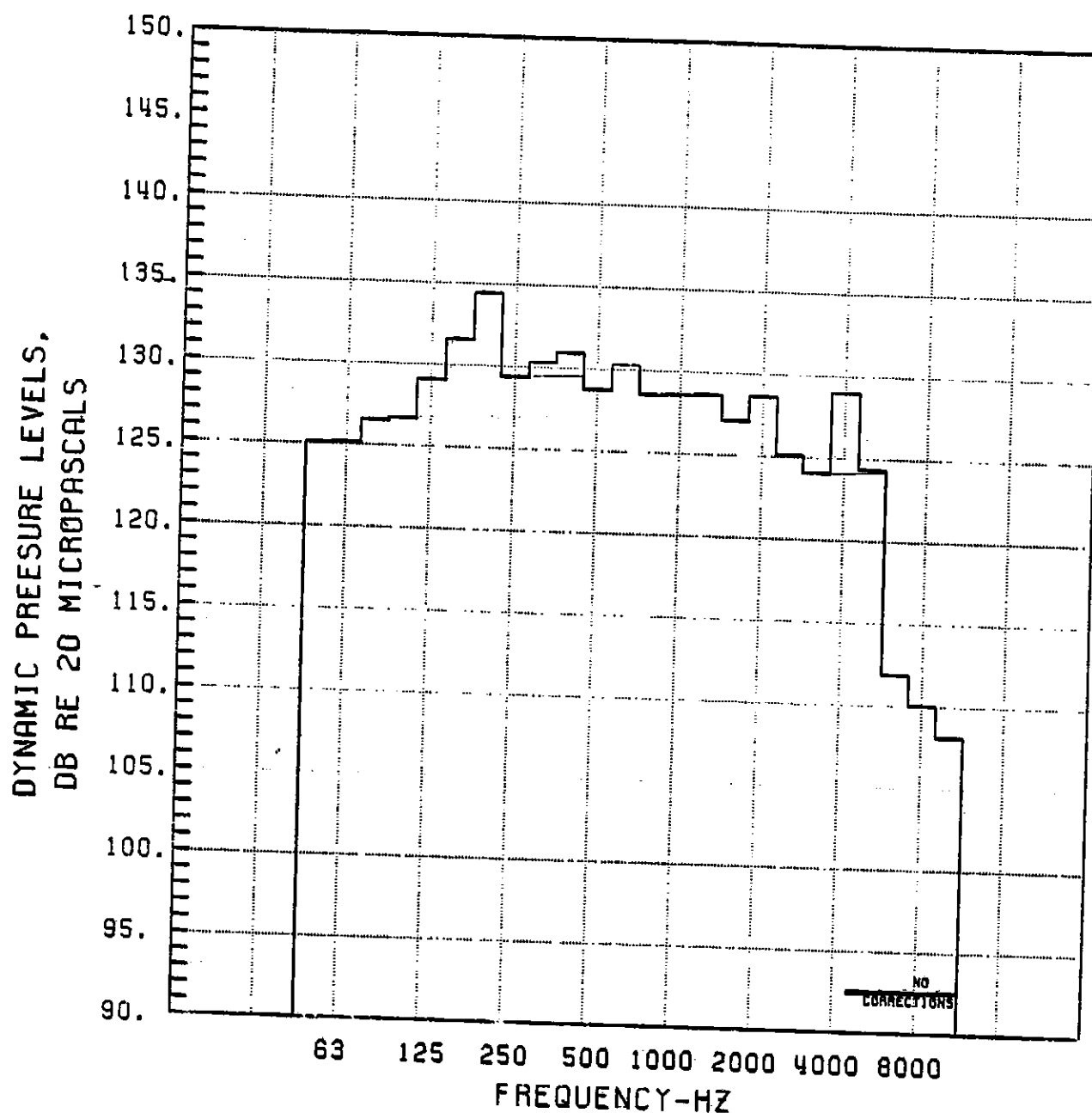
PROBE NUMBER: 8. GROUP NUMBER: IV

RUN NUMBER: 202



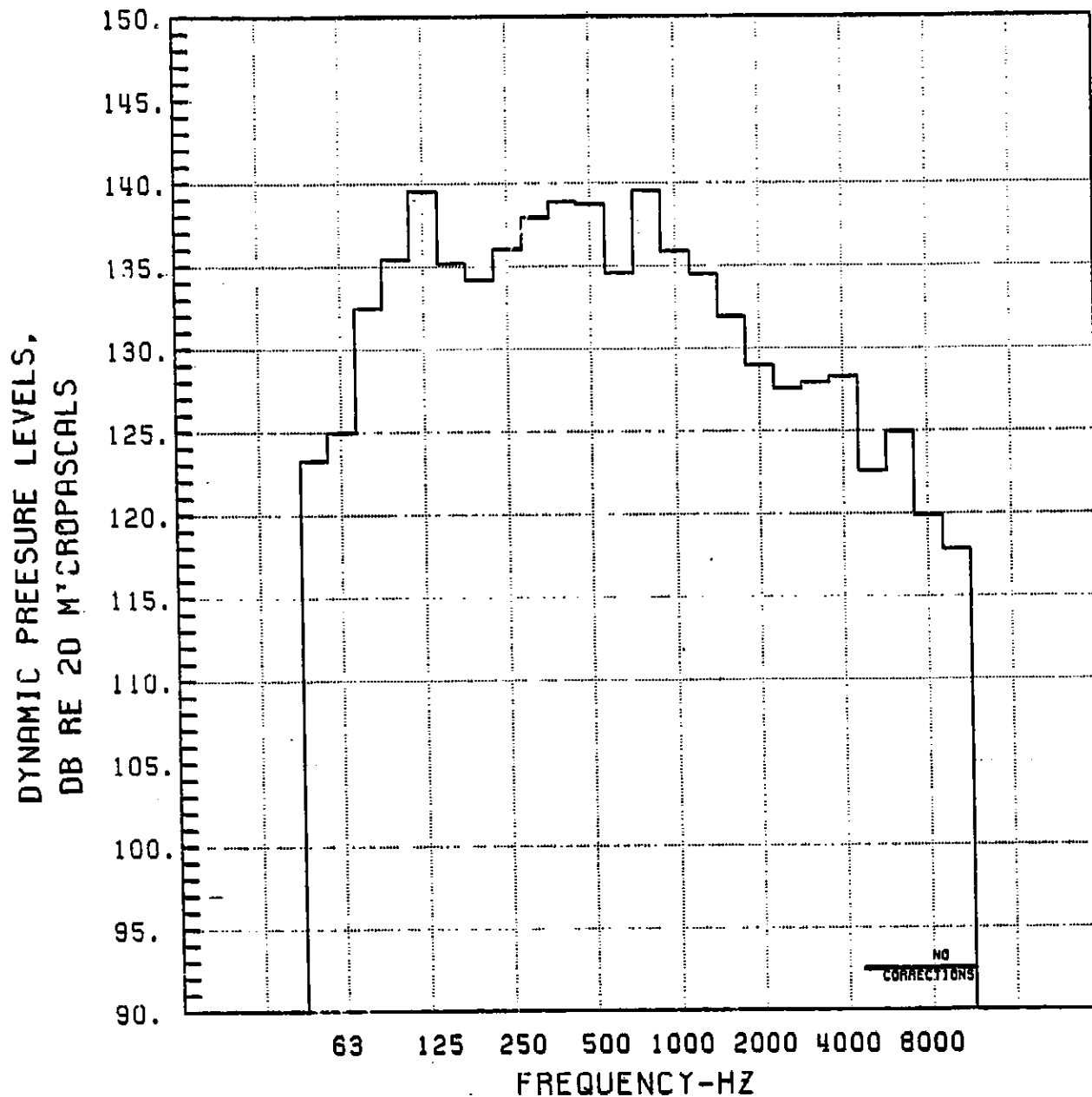
AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED
INLET PRESS=256.7 KPA(37.2 PSIA), COMB EXIT TEMP=751.8 DEG C(1385.3 DEG F)
AIR FLOW= 3.45 KG/SEC(7.60 #/SEC), FUEL FLOW=201.3 KG/HR(443.7 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 9. GROUP NUMBER: IV RUN NUMBER: 202



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED
INLET PRESS=256.7 KPA(37.2 PSIA), COMB EXIT TEMP=751.8 DEG C(1385.3 DEG F)
AIR FLOW= 3.45 KG/SEC(7.60 #/SEC), FUEL FLOW=201.3 KG/HR(443.7 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 10. GROUP NUMBER: IV RUN NUMBER: 202



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

INLET PRESS=310.8 KPA(45.1 PSIA), COMB EXIT TEMP=698.5 DEG C(1289.4 DEG F)

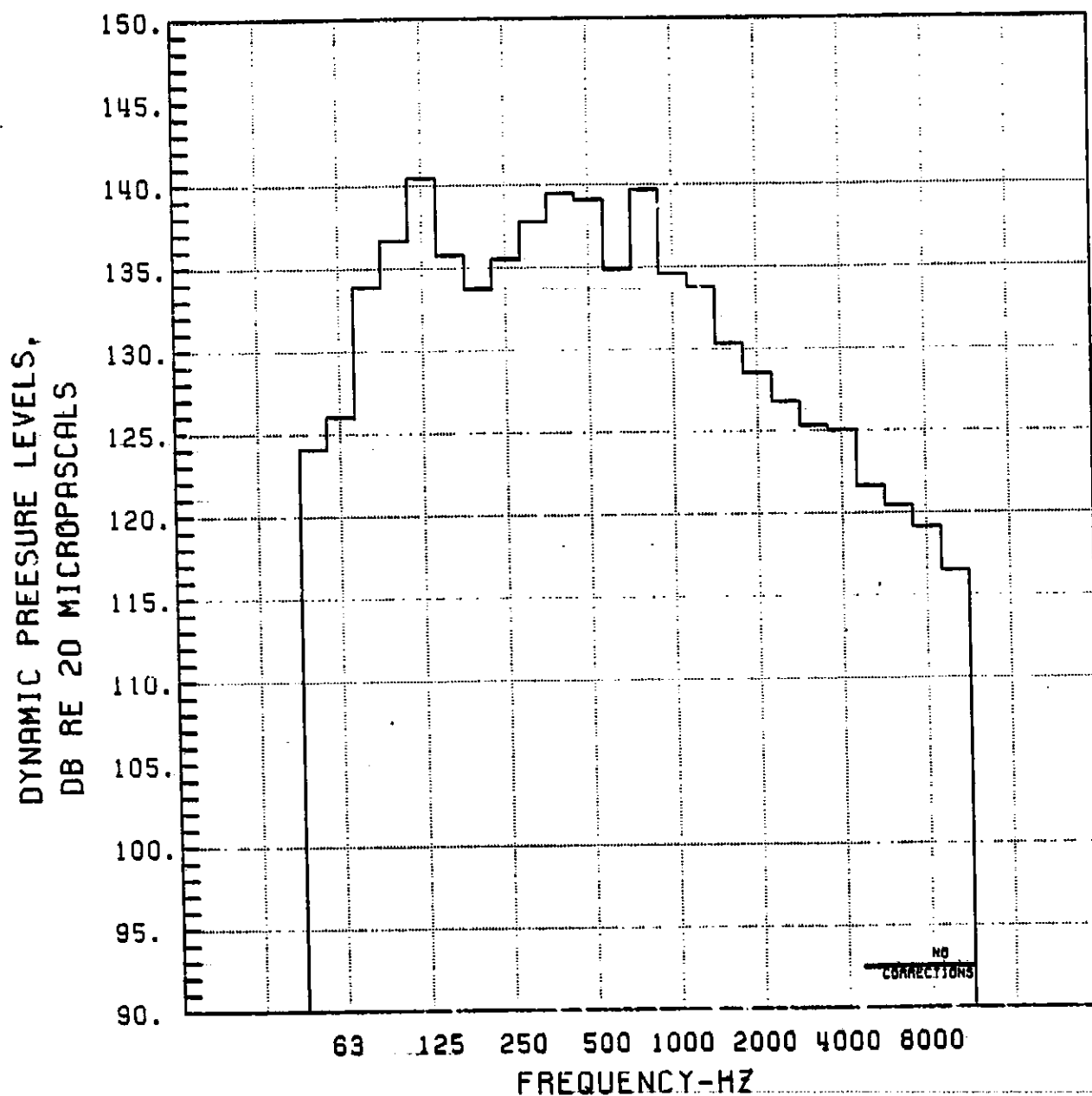
AIR FLOW= 4.30 KG/SEC(9.5 */SEC), FUEL FLOW=223.1 KG/HR(491.8 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 2.

GROUP NUMBER: IV

RUN NUMBER: 203



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

INLET PRESS=310.8 KPA(45.1 PSIA), COMB EXIT TEMP=698.5 DEG C(1289.4 DEG F)

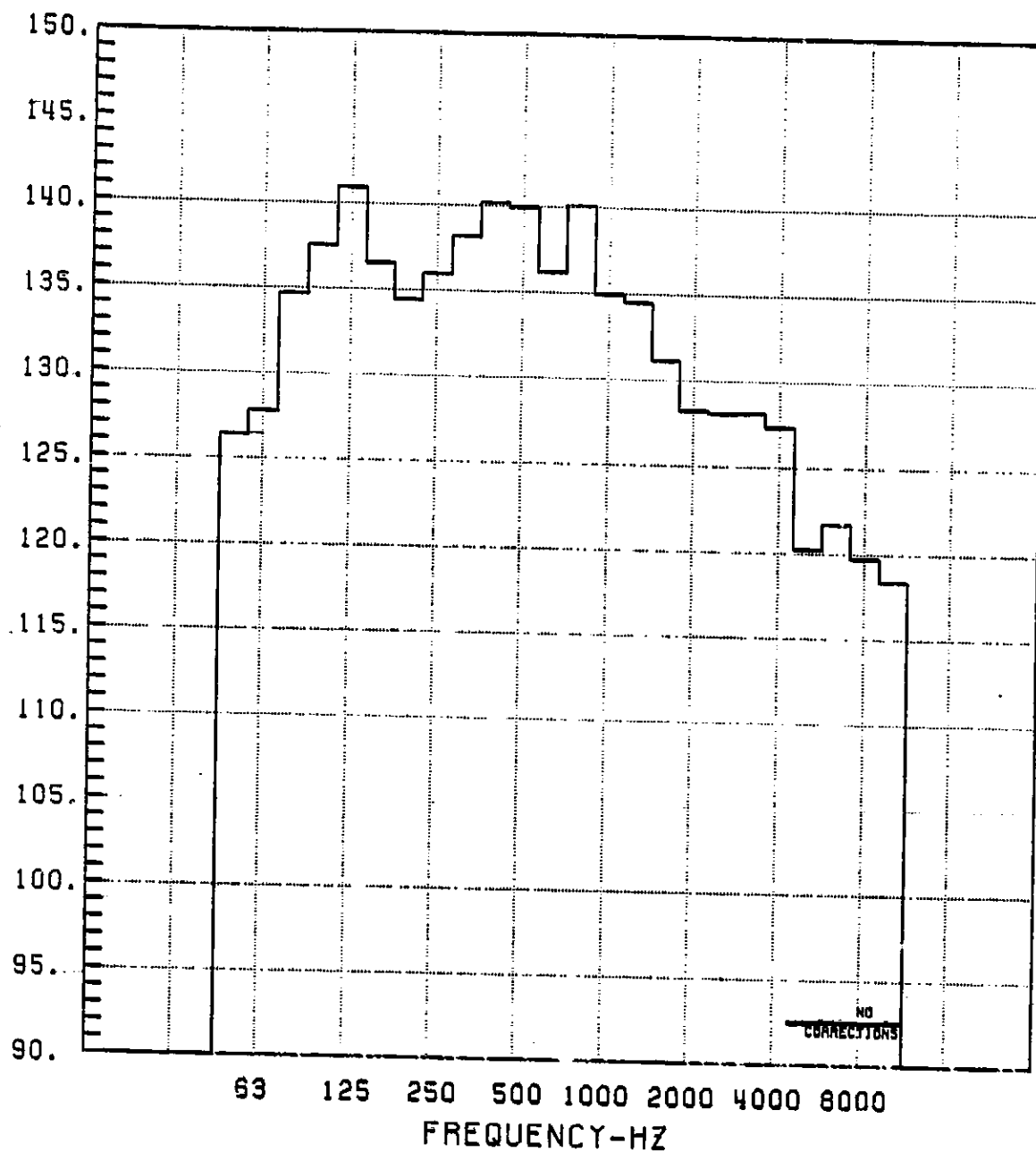
AIR FLOW= 4.30 KG/SEC(9.5 */SEC), FUEL FLOW=223.1 KG/HR(491.8 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 3. GROUP NUMBER: IV

RUN NUMBER: 203

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

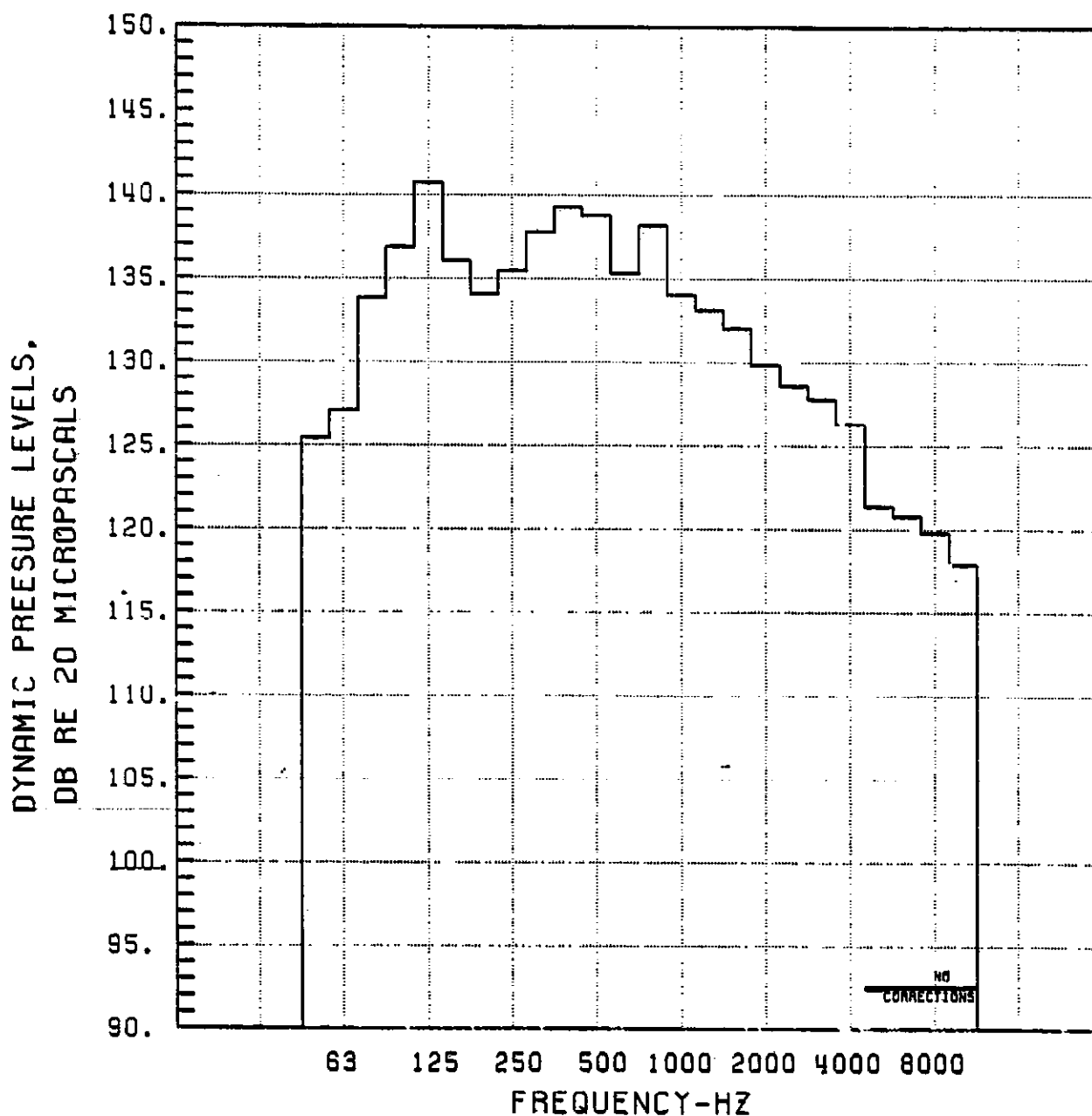
INLET PRESS=310.8 KPA(45.1 PSIA), COMB EXIT TEMP=698.5 DEG C(1289.4 DEG F)

AIR FLOW= 4.30 KG/SEC(9.5 #/SEC), FUEL FLOW=223.1 KG/HK(491.8 #/HR)

TEST DATE: FEB. 22, 1981

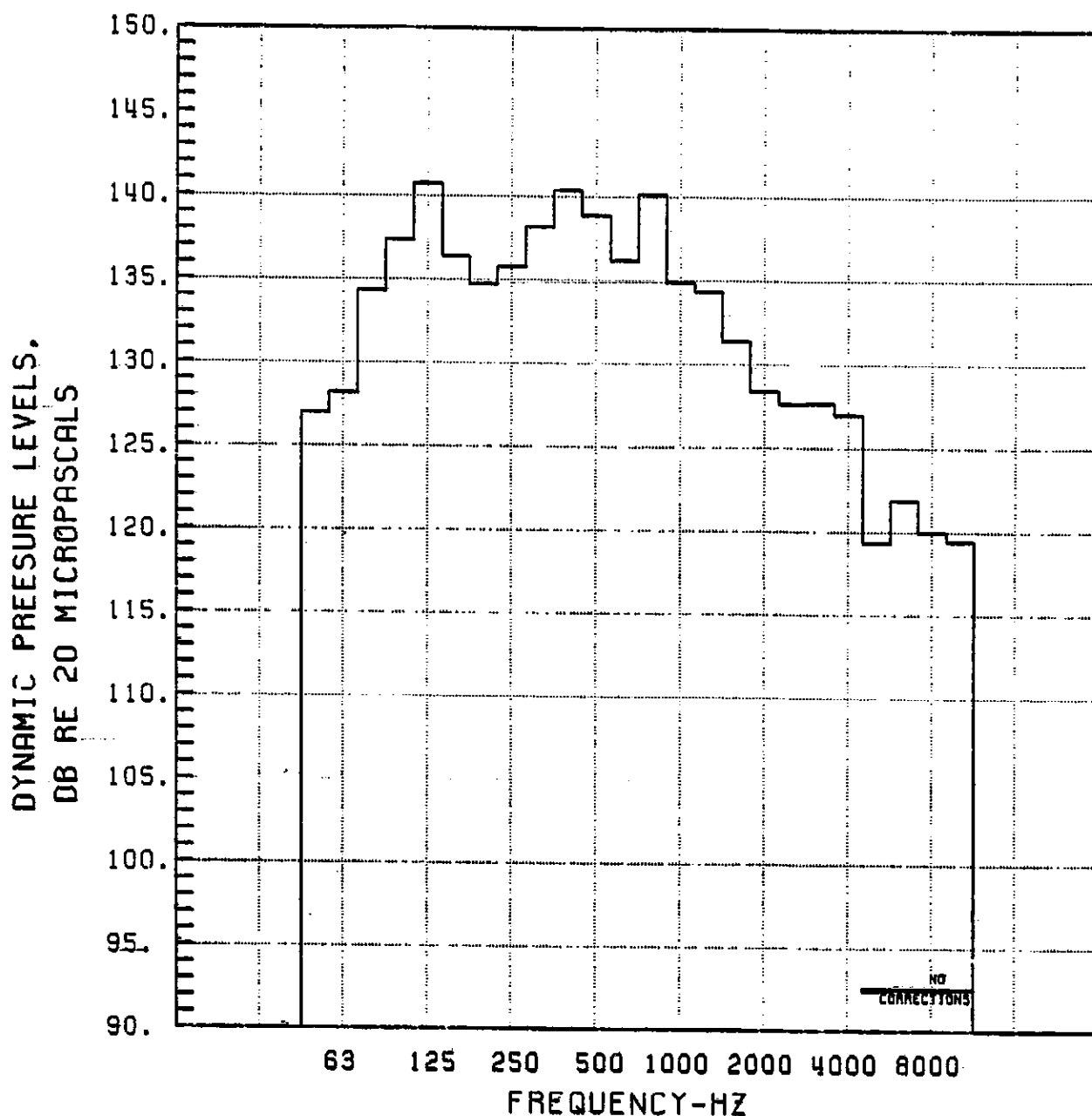
PROBE NUMBER: 4. GROUP NUMBER: IV

RUN NUMBER: 203



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: TF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED
INLET PRESS=310.8 KPA(45.1 PSIA), COMB EXIT TEMP=698.5 DEG C(1289.4 DEG F)
AIR FLOW= 4.30 KG/SEC(9.5 #/SEC), FUEL FLOW=223.1 KG/HR(491.8 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 5. GROUP NUMBER: IV RUN NUMBER: 203



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

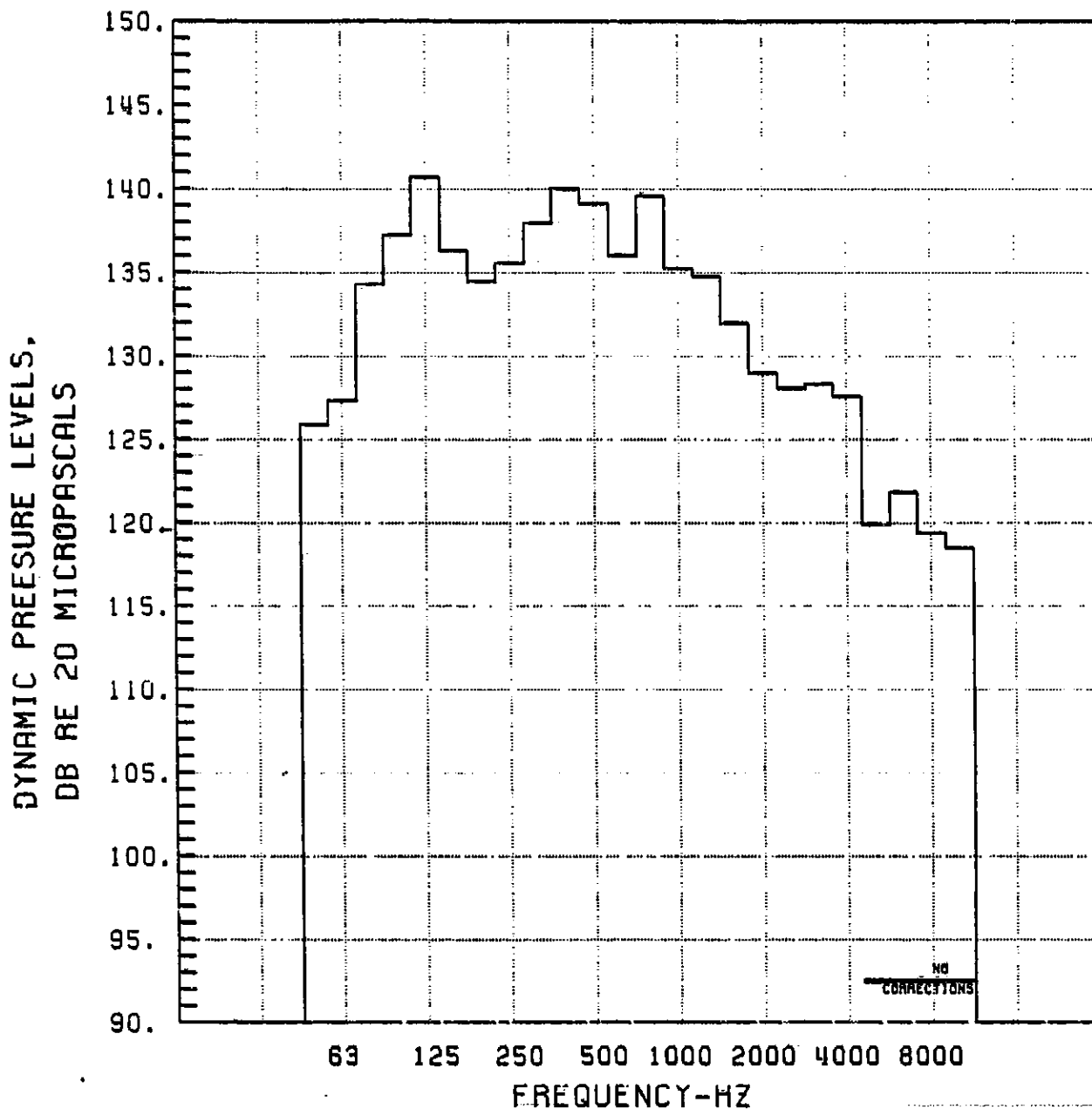
INLET PRESS=310.8 KPA(45.1 PSIA), COMB EXIT TEMP=698.5 DEG C(1289.4 DEG F)

AIR FLOW= 4.30 KG/SEC(9.5 #/SEC), FUEL FLOW=223.1 KG/HK(491.8 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: G. GROUP NUMBER: IV

RUN NUMBER: 203



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

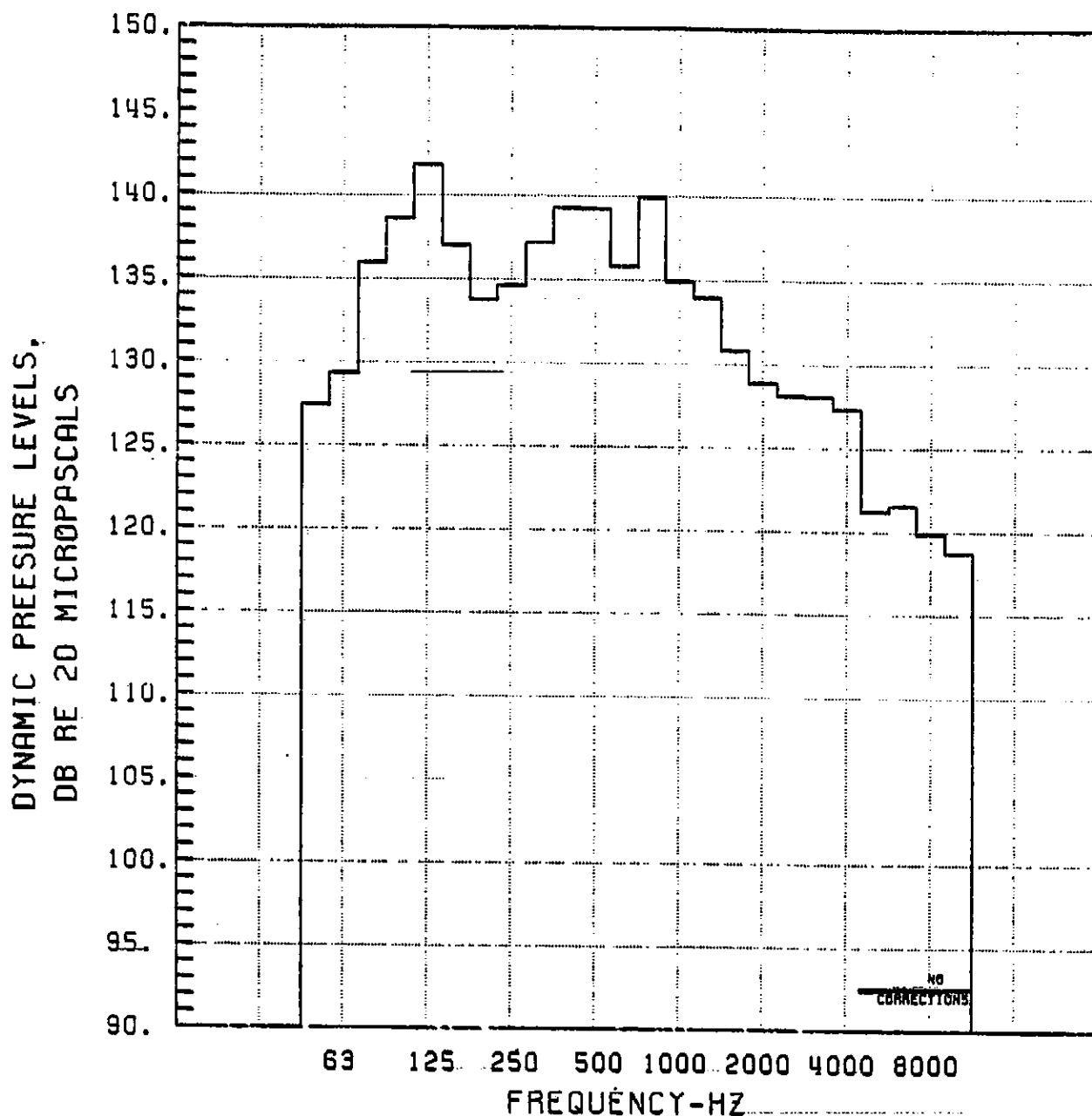
INLET PRESS=310.8 KPA(45.1 PSIA), COMB EXIT TEMP=698.5 DEG C(1289.4 DEG F)

AIR FLOW= 4.30 KG/SEC(9.5 #/SEC), FUEL FLOW=223.1 KG/HR(491.8 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 7. GROUP NUMBER: IV

RUN NUMBER: 203



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

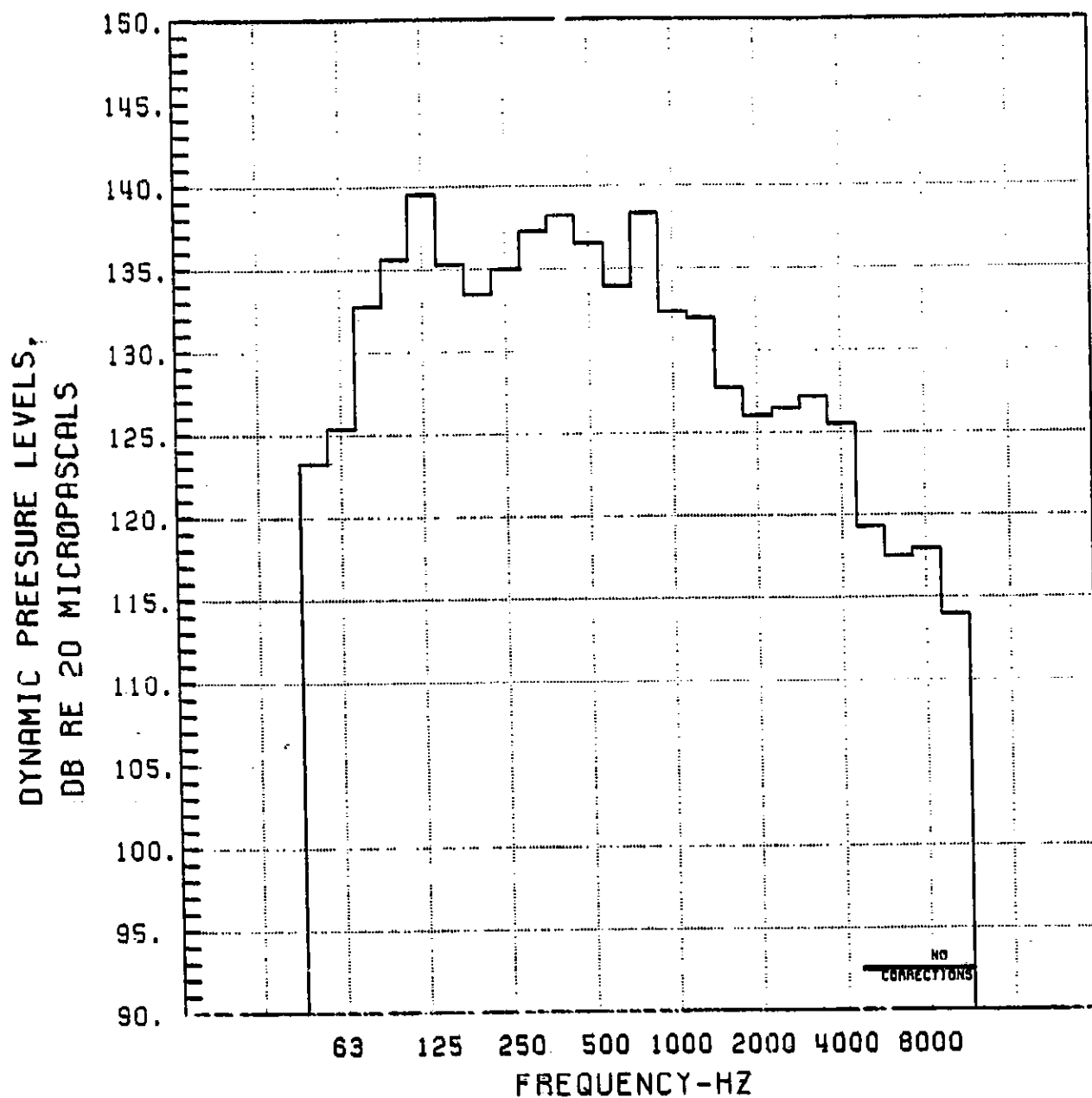
INLET PRESS=310.8 KPA(45.1 PSIA), COMB EXIT TEMP=698.5 DEG C(1289.4 DEG F)

AIR FLOW= 4.30 KG/SEC(9.5 #/SEC), FUEL FLOW=223.1 KG/HR(491.8 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 8. GROUP NUMBER: IV

RUN NUMBER: 203



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: TF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

INLET PRESS=310.8 KPA(45.1 PSIA), COMB EXIT TEMP=628.5 DEG C(1189.4 DEG F)

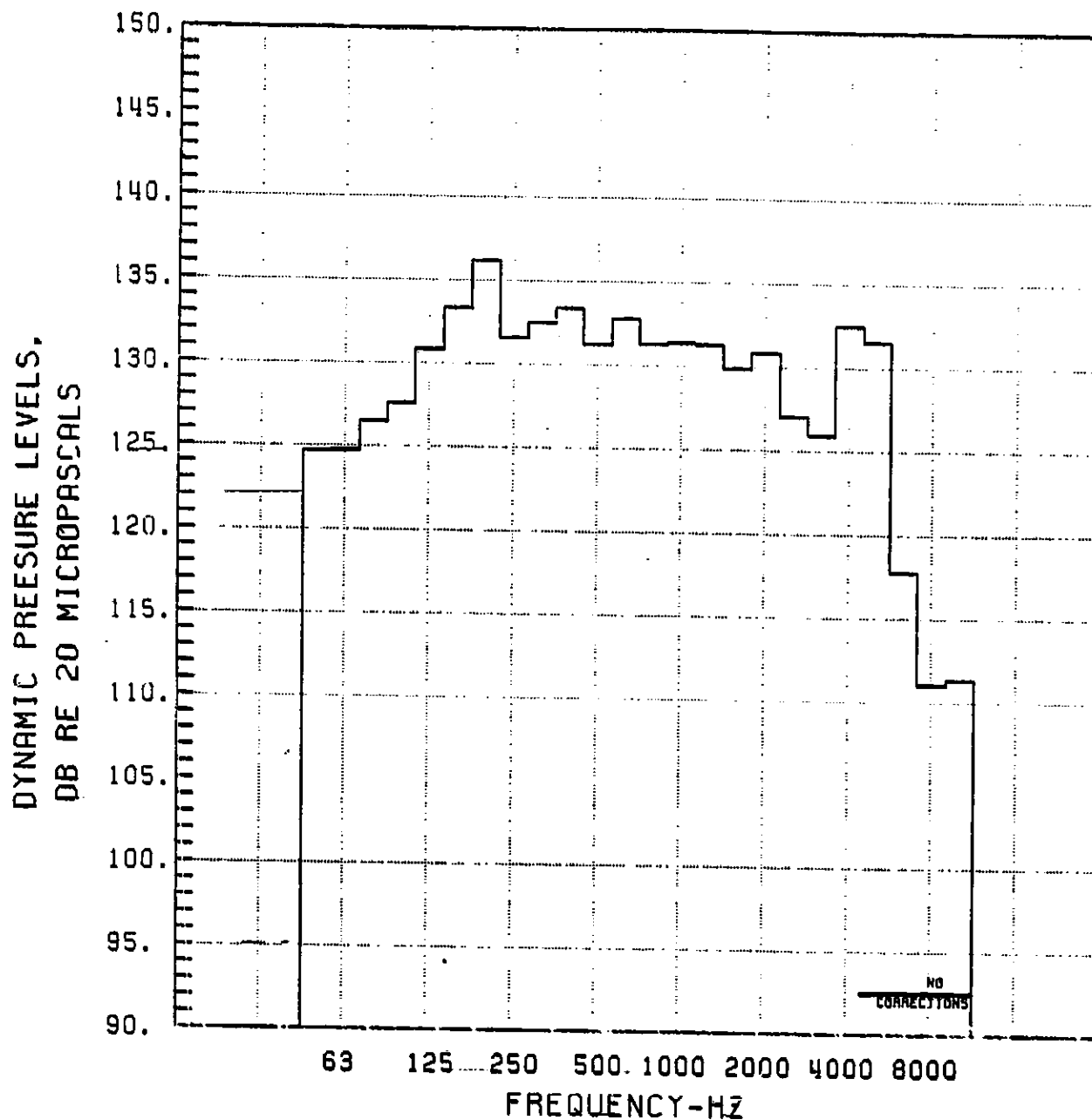
AIR FLOW= 4.30 KG/SEC(9.5 */SEC), FUEL FLOW=223.1 KG/HR(491.8 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 9.

GROUP NUMBER: IV

RUN NUMBER: 203



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

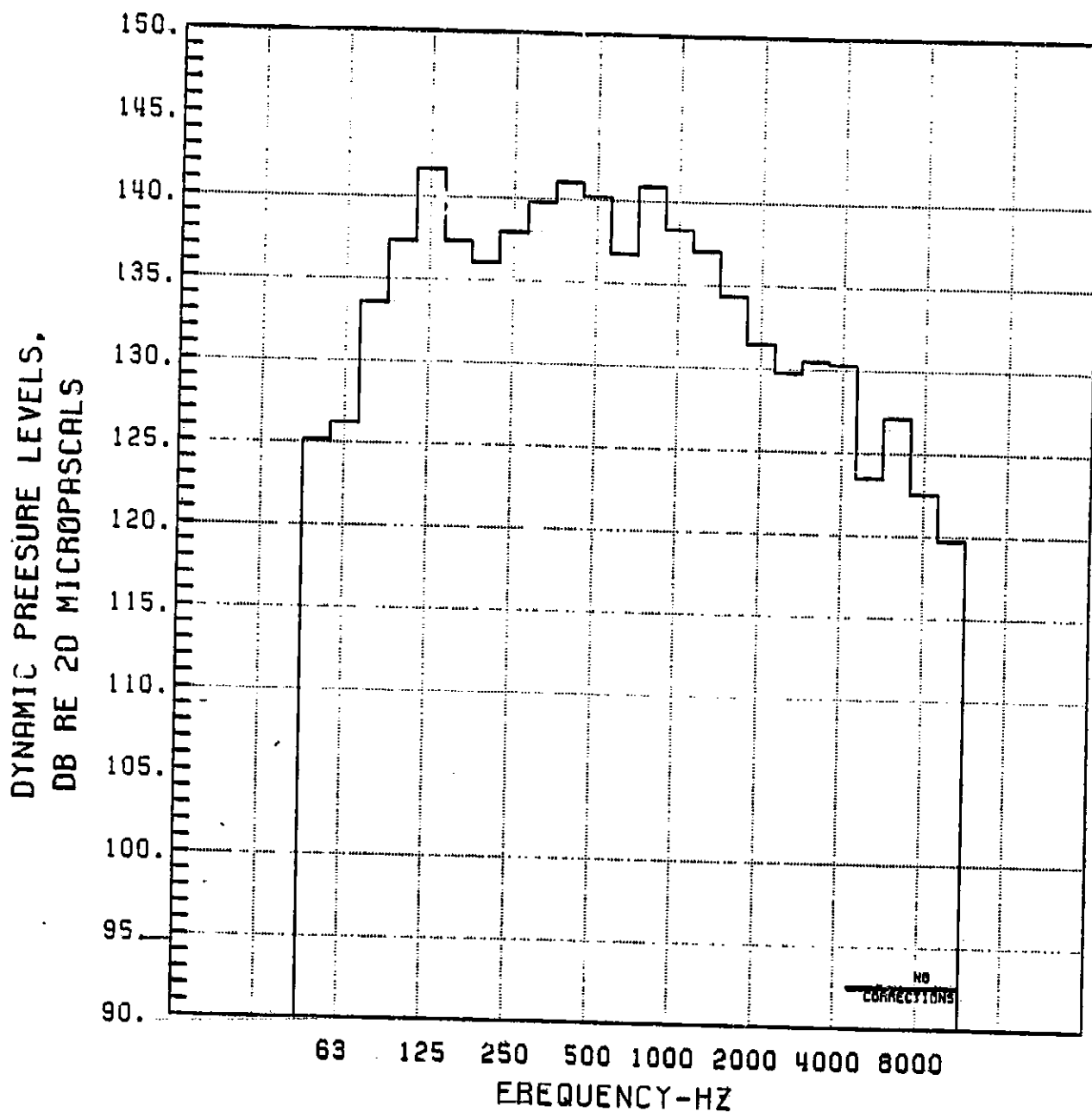
INLET PRESS=310.8 KPA(45.1 PSIA), COMB EXIT TEMP=898.5 DEG C(1289.4 DEG F)

AIR FLOW= 4.30 KG/SEC(9.5 */SEC), FUEL FLOW=223.1 KG/HR(491.3 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 10. GROUP NUMBER: IV

RUN NUMBER: 203



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

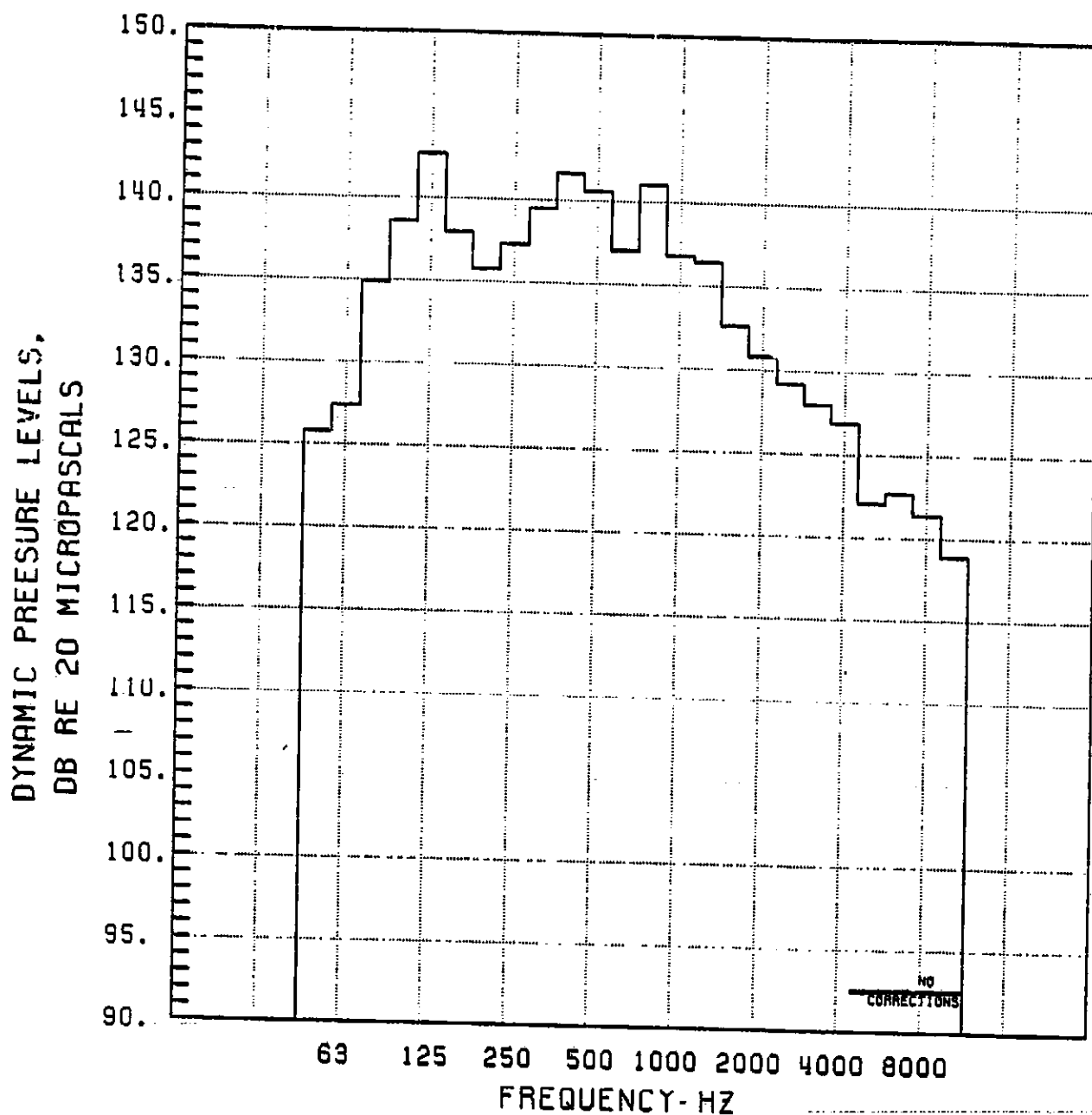
INLET PRESS=373.3 KPA(54.1 PSIA), COMB EXIT TEMP=723.6 DEG C(1334.4 DEG F)

AIR FLOW= 5.04 KG/SEC(11.1 #/SEC), FUEL FLOW=262.3 KG/HR(578.2 #/HR)

TEST DATE: FEB. 22, 1981

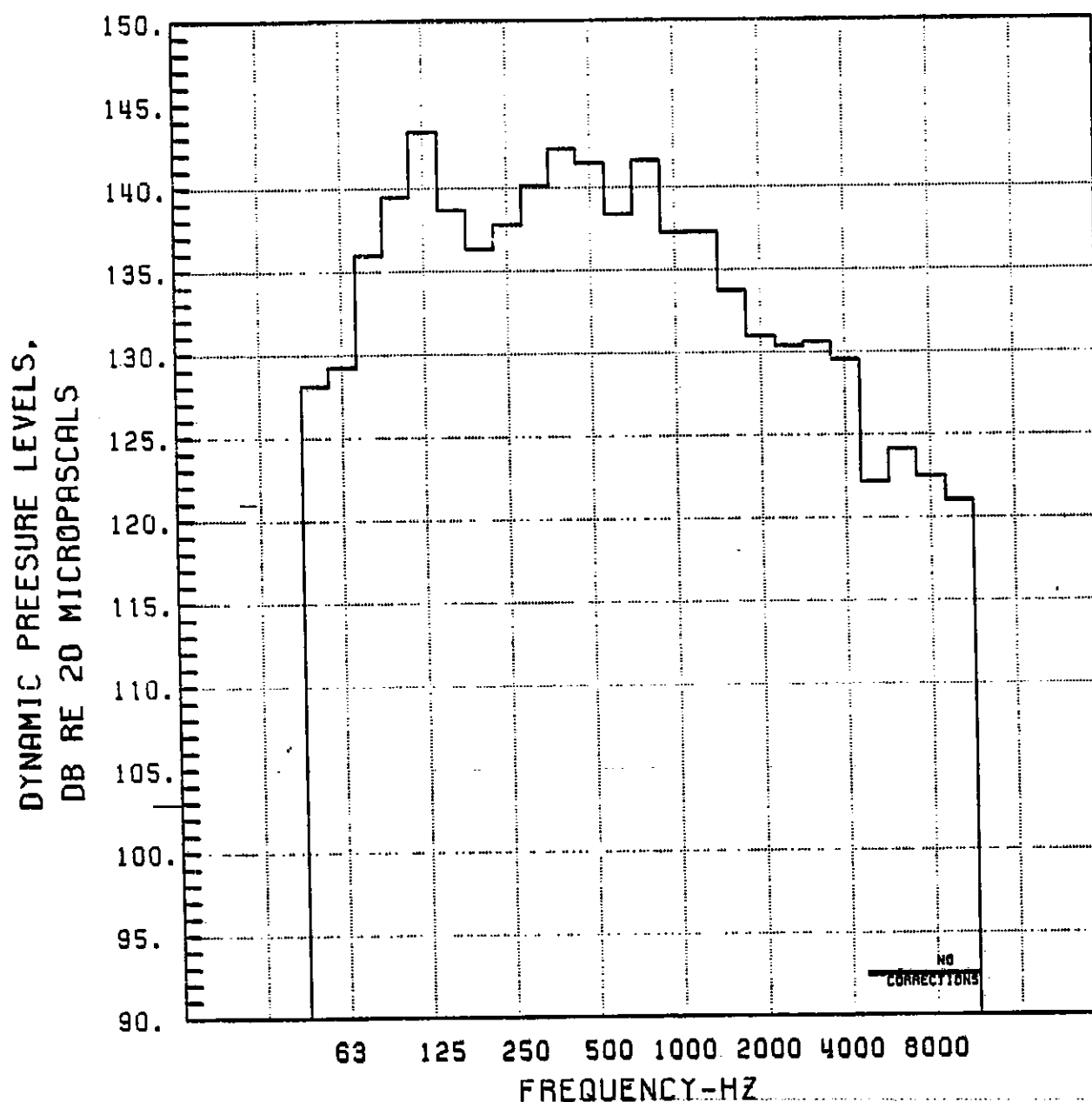
PROCE NUMBER: 2, GROUP-NUMBER: IV

RUN NUMBER: 206



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED
INLET PRESS=373.3 KPA(54.1 PSIA), COMB EXIT TEMP=723.6 DEG C(1334.4 DEG F)
AIR FLOW= 5.04 KG/SEC(11.1 #/SEC), FUEL FLOW=262.3 KG/HR(578.2 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 3, GROUP NUMBER: IV RUN NUMBER: 206



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

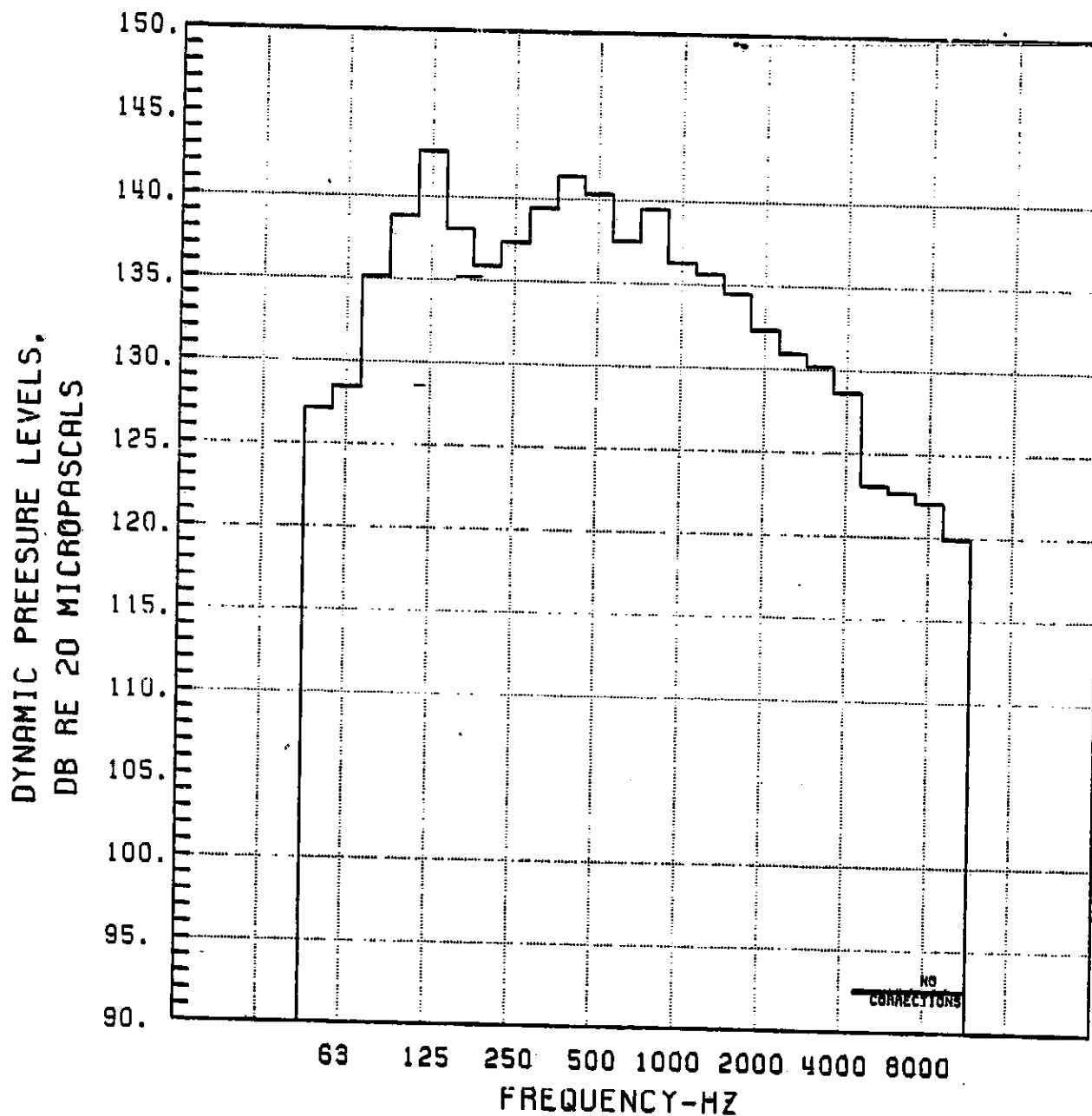
INLET PRESS=373.3 KPA(54.1 PSIA), COMB EXIT TEMP=723.6 DEG C(1334.4 DEG F)

AIR FLOW= 5.04 KG/SEC(11.1 */SEC), FUEL FLOW=262.3 KG/HR(578.2 */HR)

TEST DATE: FEB. 22, 1981

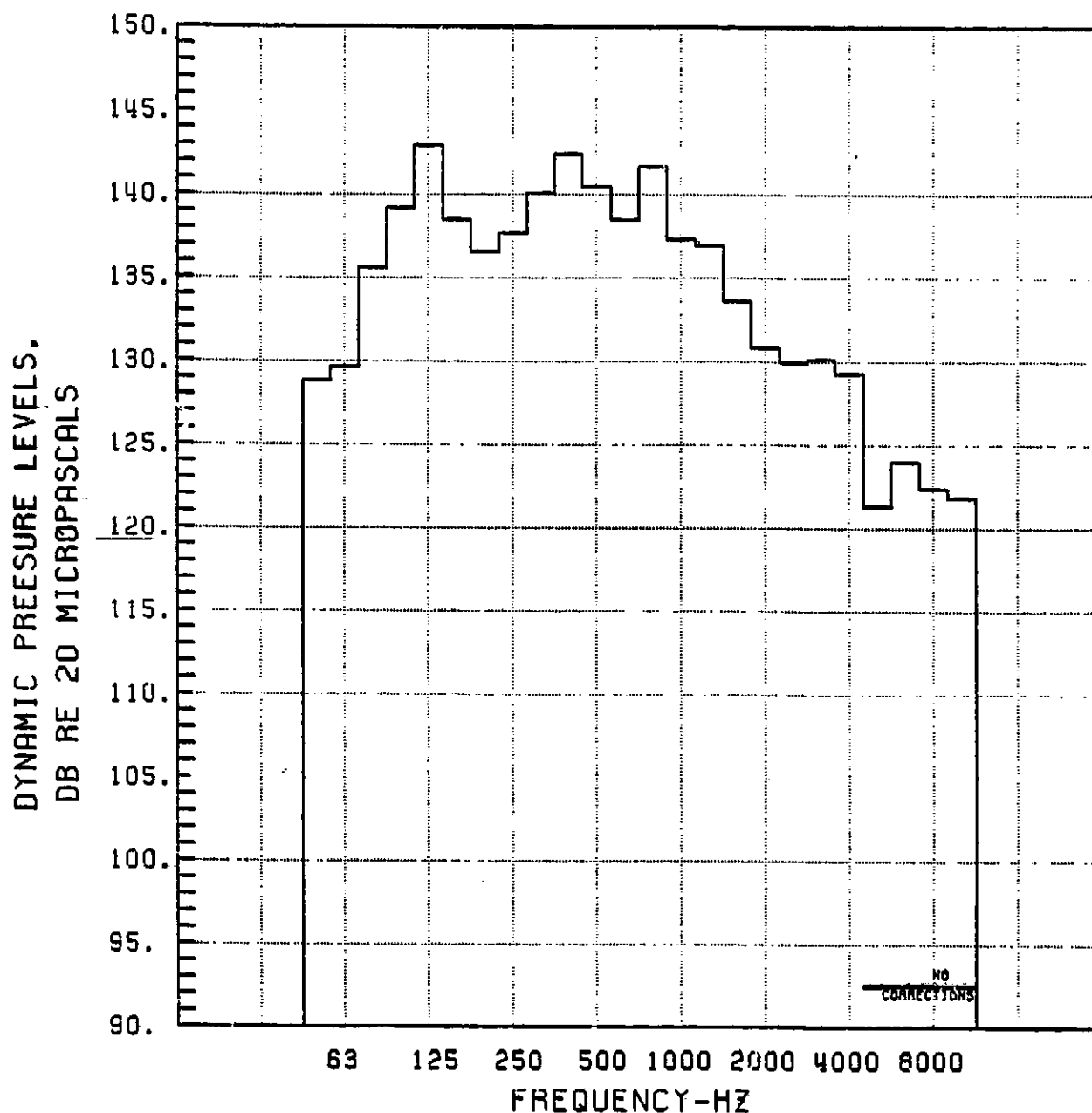
PROBE NUMBER: 4. GROUP NUMBER: IV

RUN NUMBER: 206



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED
INLET PRESS=373.3 KPA(54.1 PSIA), COMB EXIT TEMP=723.6 DEG C(1334.4 DEG F)
AIR FLOW= 5.04 KG/SEC(11.1 #/SEC), FUEL FLOW=262.3 KG/HR(578.2 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 5. GROUP NUMBER: IV RUN NUMBER: 206



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

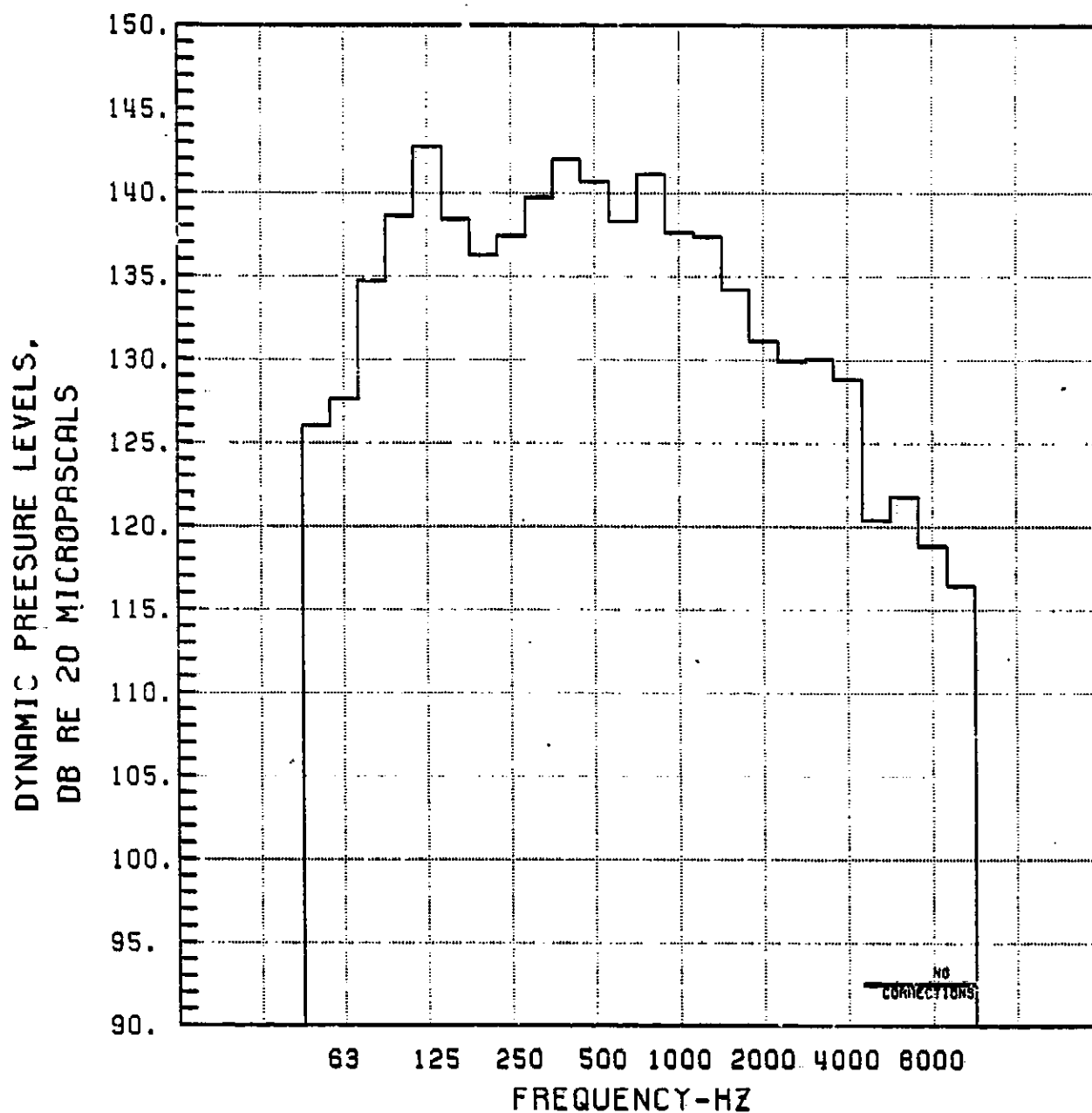
INLET PRESS=373.3 KPA(54.1 PSIA), COMB EXIT TEMP=723.6 DEG C(1334.4 DEG F)

AIR FLOW= 5.04 KG/SEC(11.1 #/SEC), FUEL FLOW=262.3 KG/HR(578.2 #/HR)

TEST DATE: FEB. 22, 1981

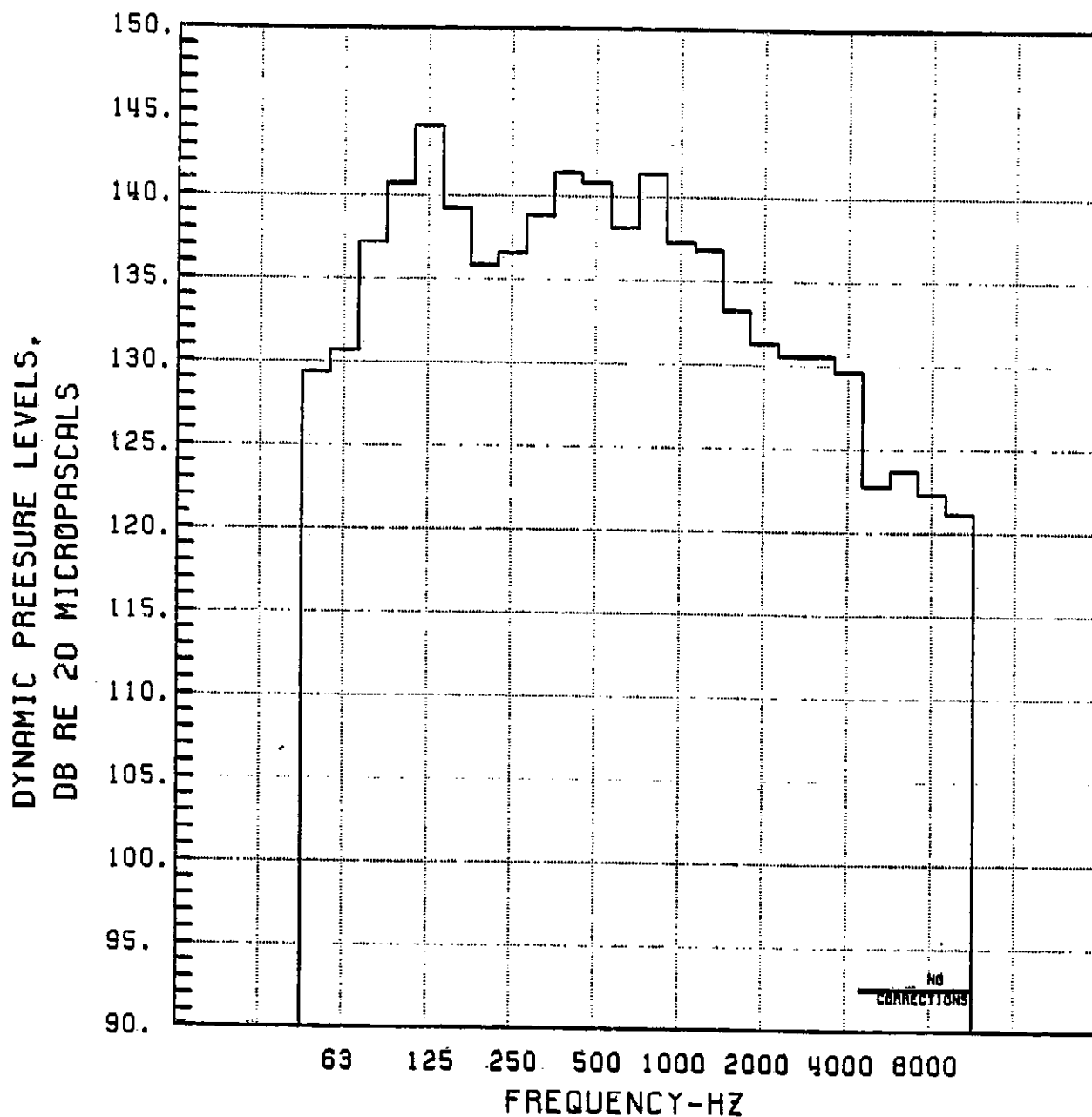
PROBE NUMBER: 6. GROUP NUMBER: IV

RUN NUMBER: 206



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED
INLET PRESS=373.3 KPA(54.1 PSIA), COMB EXIT TEMP=723.6 DEG C(1334.4 DEG F)
AIR FLOW= 5.04 KG/SEC(11.1 #/SEC), FUEL FLOW=262.3 KG/HR(578.2 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 7. GROUP NUMBER: IV RUN NUMBER: 206



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

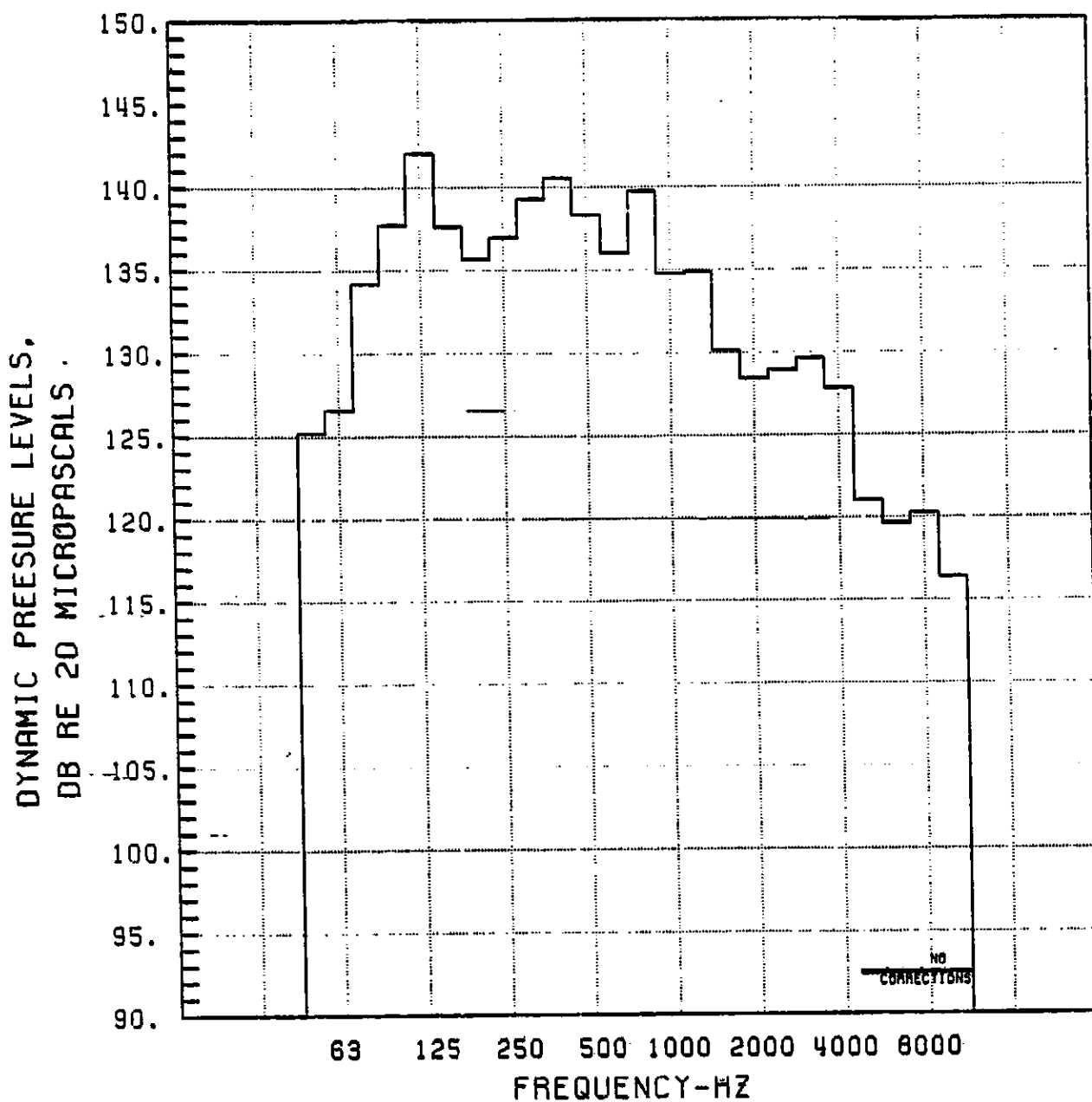
INLET PRESS=373.3 KPA(54.1 PSIA), COMB EXIT TEMP=723.6 DEG C(1334.4 DEG F)

AIR FLOW= 5.04 KG/SEC(11.1 #/SEC), FUEL FLOW=262.3 KG/HR(578.2 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 8. GROUP NUMBER: IV

RUN NUMBER: 206



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

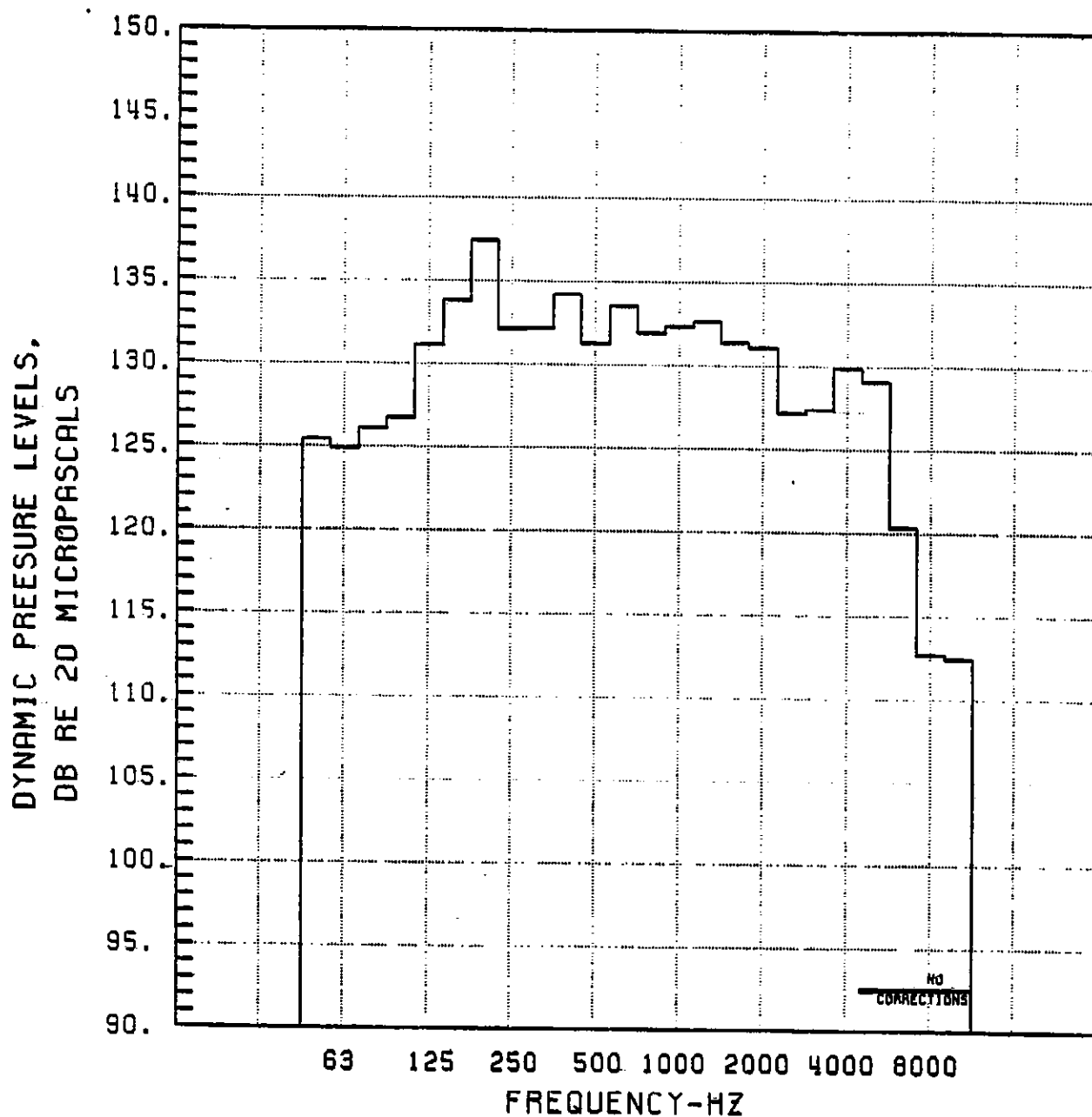
INLET PRESS=373.3 KPA(54.1 PSIA), COMB EXIT TEMP=723.6 DEG C(1334.4 DEG F)

AIR FLOW= 5.04 KG/SEC(11.1 #/SEC), FUEL FLOW=262.3 KG/HR(578.2 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 9. GROUP NUMBER: IV

RUN NUMBER: 206



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

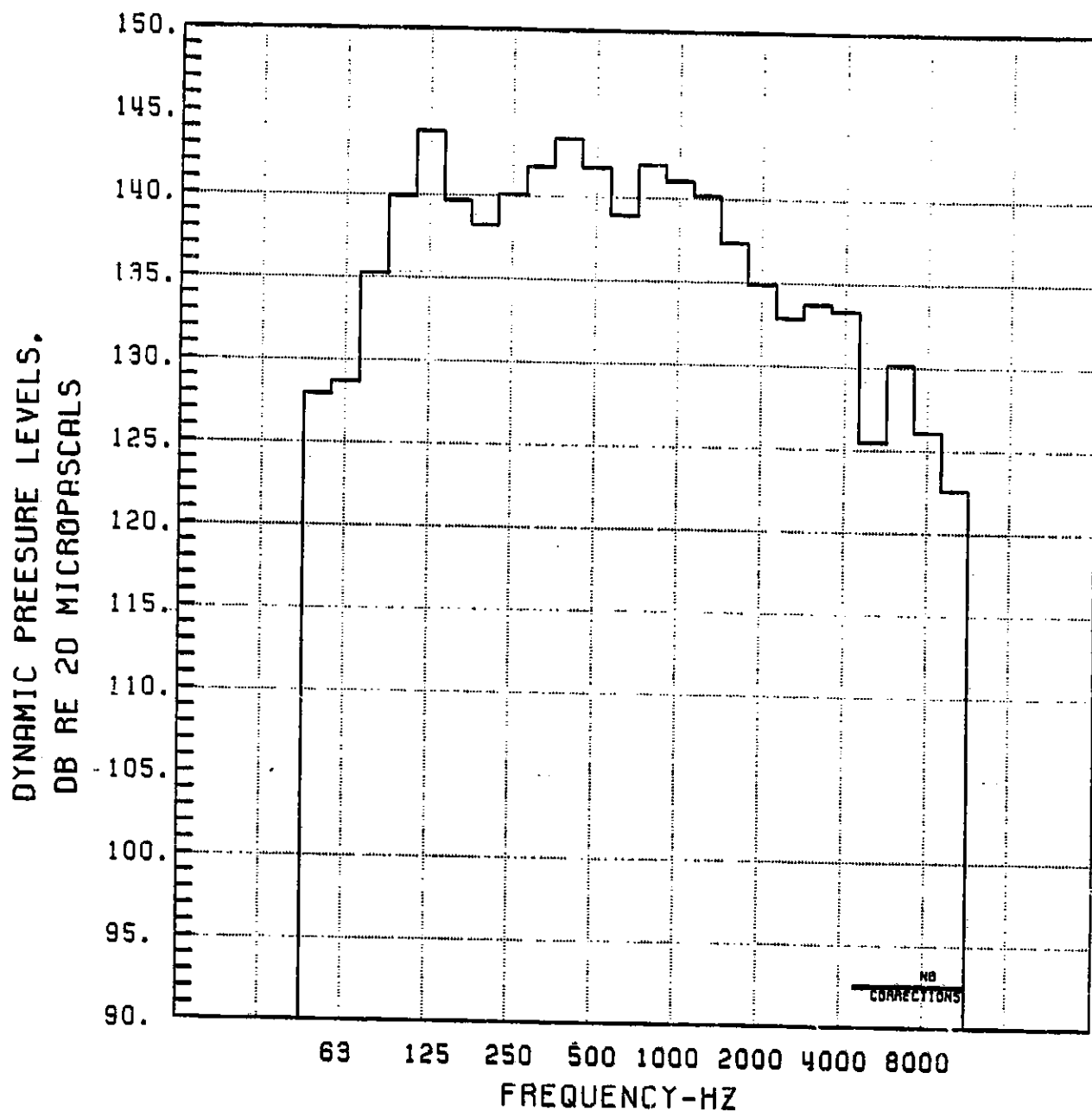
INLET PRESS=373.3 KPA(54.1 PSIA), COMB EXIT TEMP=723.6 DEG C(1334.4 DEG F)

AIR FLOW= 5.04 KG/SEC(11.1 #/SEC), FUEL FLOW=262.3 KG/HR(578.2 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 10. GROUP NUMBER: IV

RUN NUMBER: 206



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

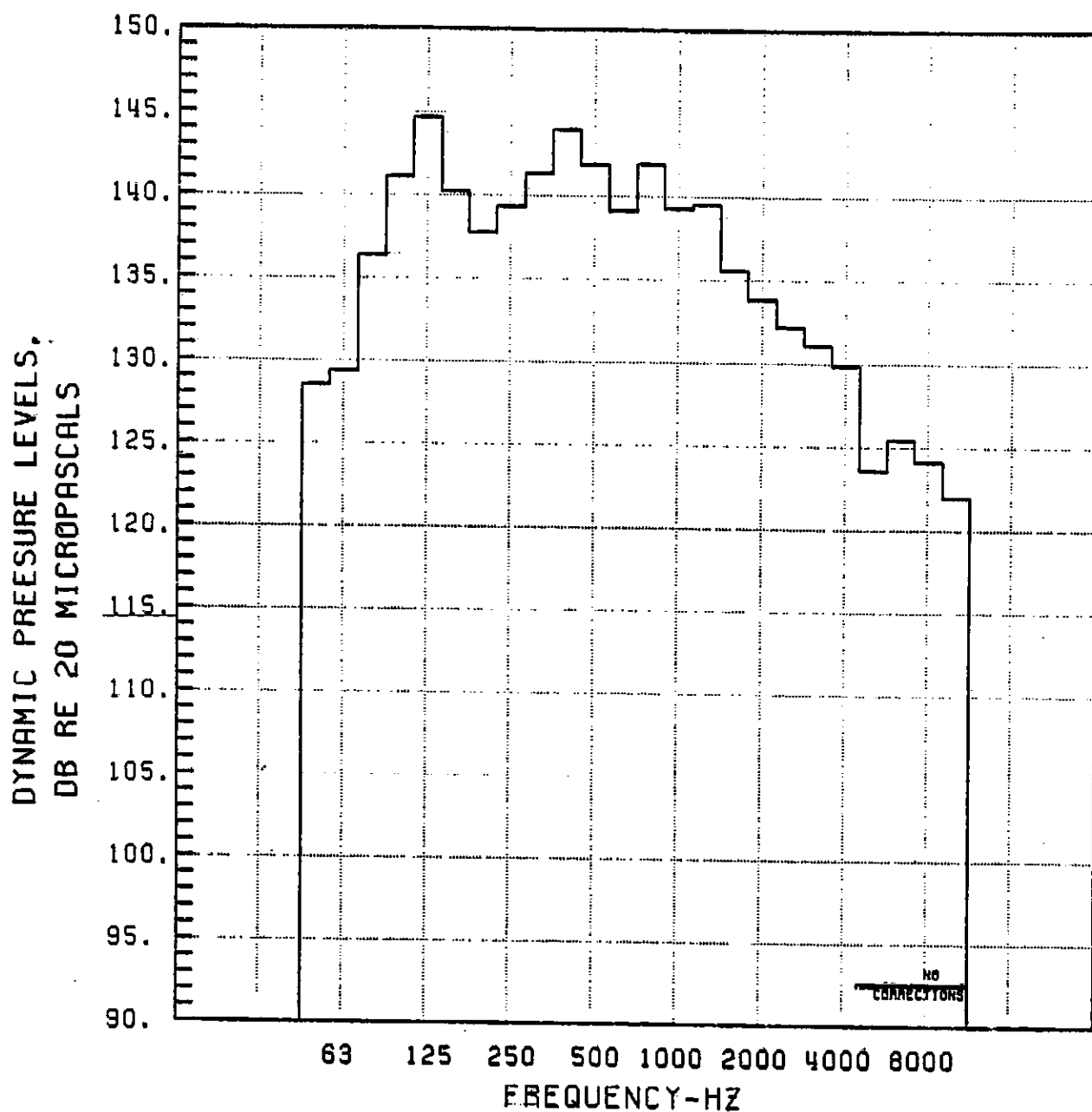
INLET PRESS=446.9 KPA(64.8 PSIA), COMB EXIT TEMP=725.2 DEG C(1337.4 DEG F)

AIR FLOW= 6.26 KG/SEC(13.8 #/SEC), FUEL FLOW=310.4 KG/HR(684.3 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 2. GROUP NUMBER: IV

RUN NUMBER: 207



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

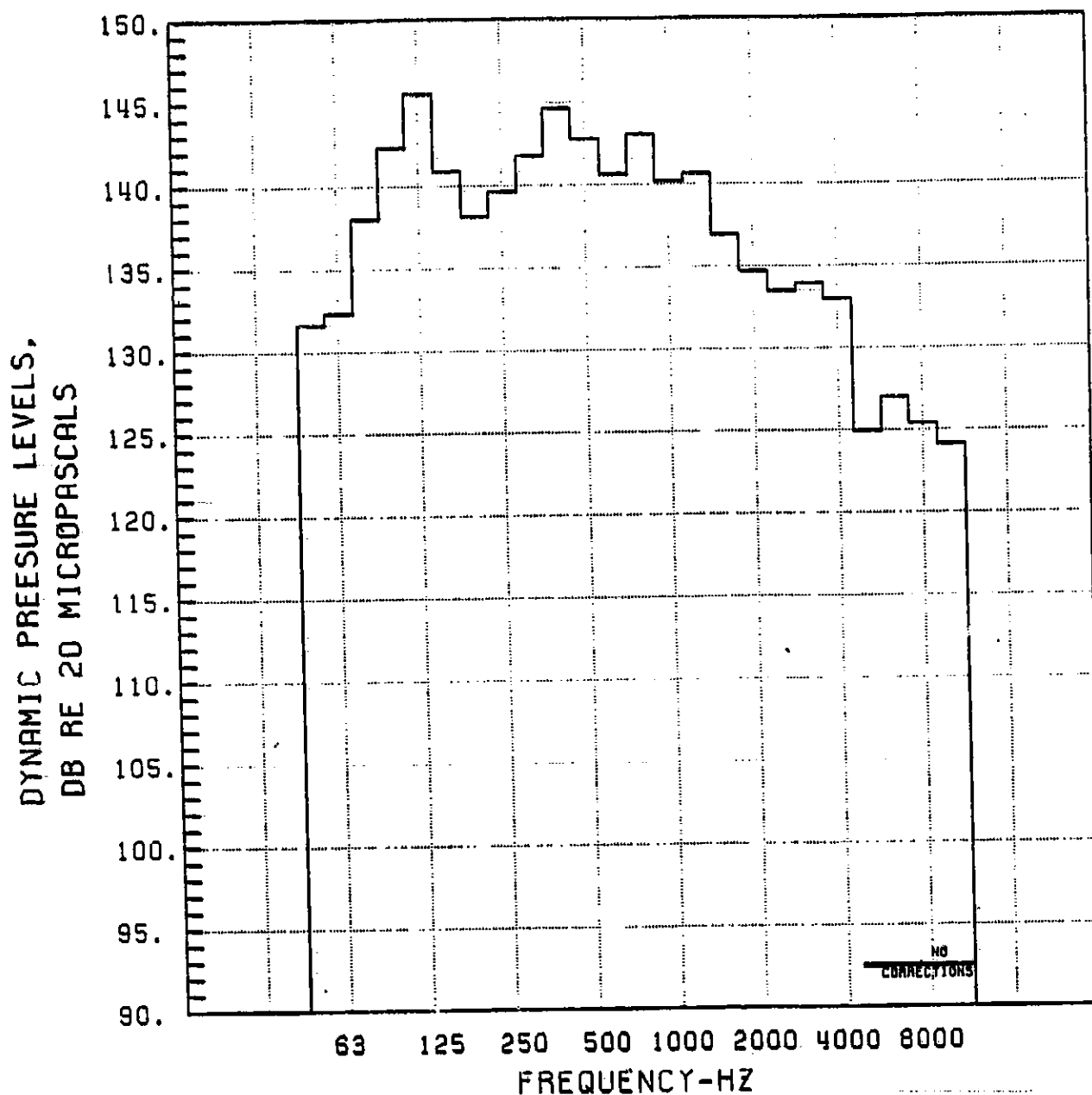
INLET PRESS=446.9 KPA(64.8 PSIA), COMB EXIT TEMP=725.2 DEG C(1337.4 DEG F)

AIR FLOW= 6.26 KG/SEC(13.8 #/SEC), FUEL FLOW=310.4 KG/HR(684.3 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 3. GROUP NUMBER: IV

RUN NUMBER: 207



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

INLET PRESS=446.9 KPA(64.8 PSIA), COMB EXIT TEMP=725.2 DEG C(1337.4 DEG F)

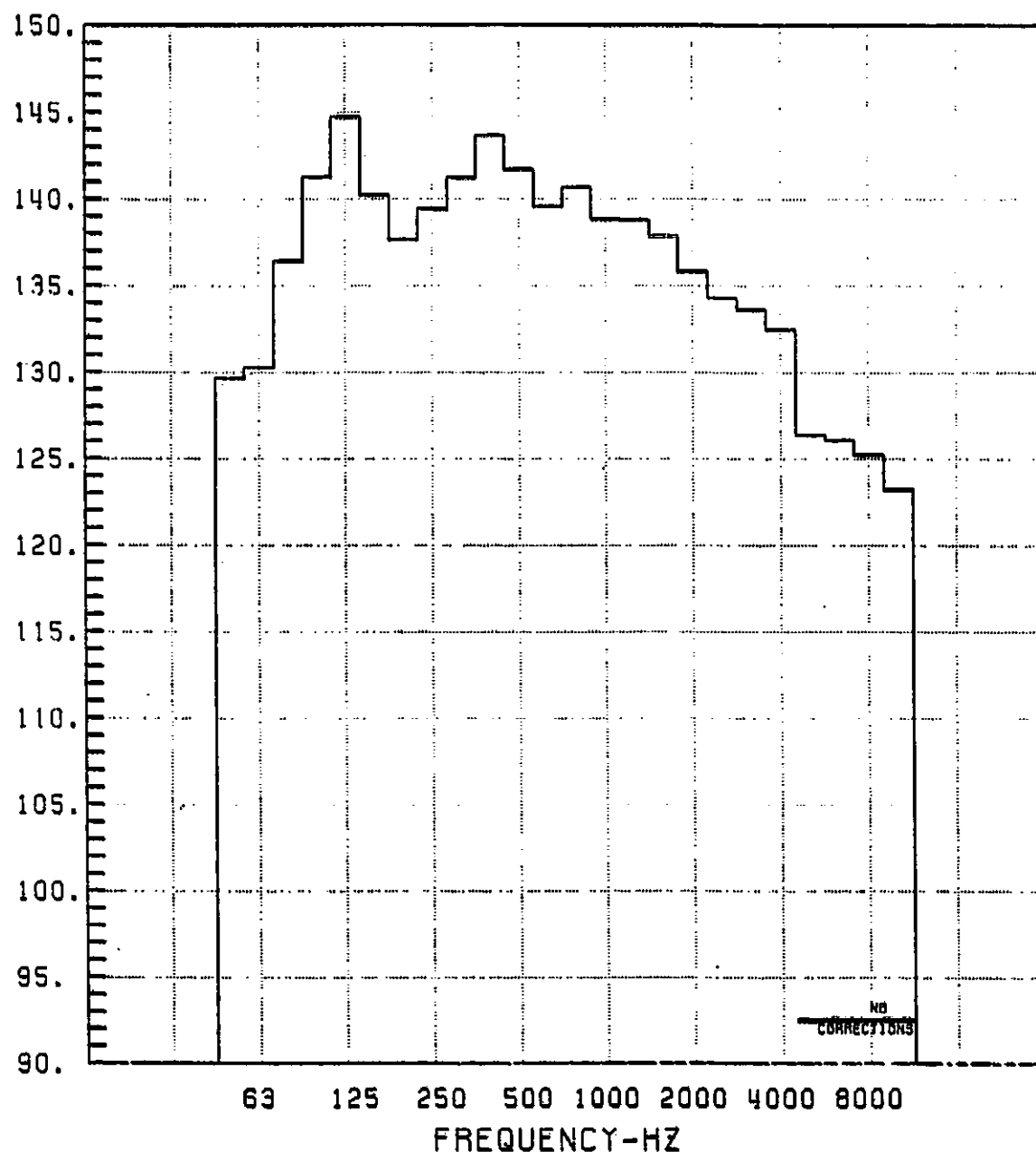
AIR FLOW= 6.26 KG/SEC(13.8 #/SEC), FUEL FLOW=310.4 KG/HR(684.3 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 4. GROUP NUMBER: IV

RUN NUMBER: 207

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

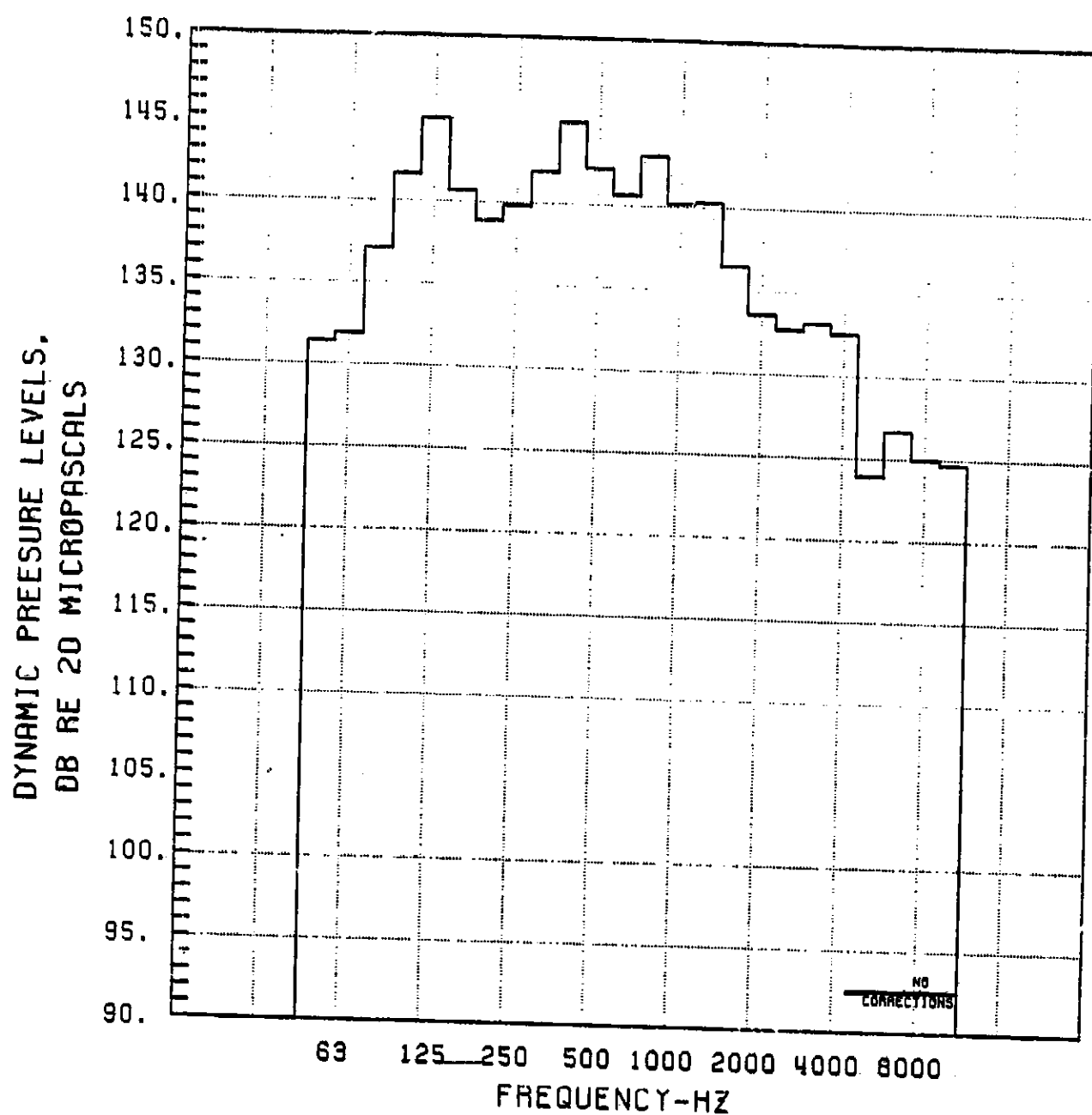
INLET PRESS=446.9 KPA(64.8 PSIA), COMB EXIT TEMP=725.2 DEG C(1337.4 DEG F)

AIR FLOW= 6.26 KG/SEC(13.8 */SEC), FUEL FLOW=310.4 KG/HR(684.3 */HR)

TEST DATE: FEB. 22, 1981

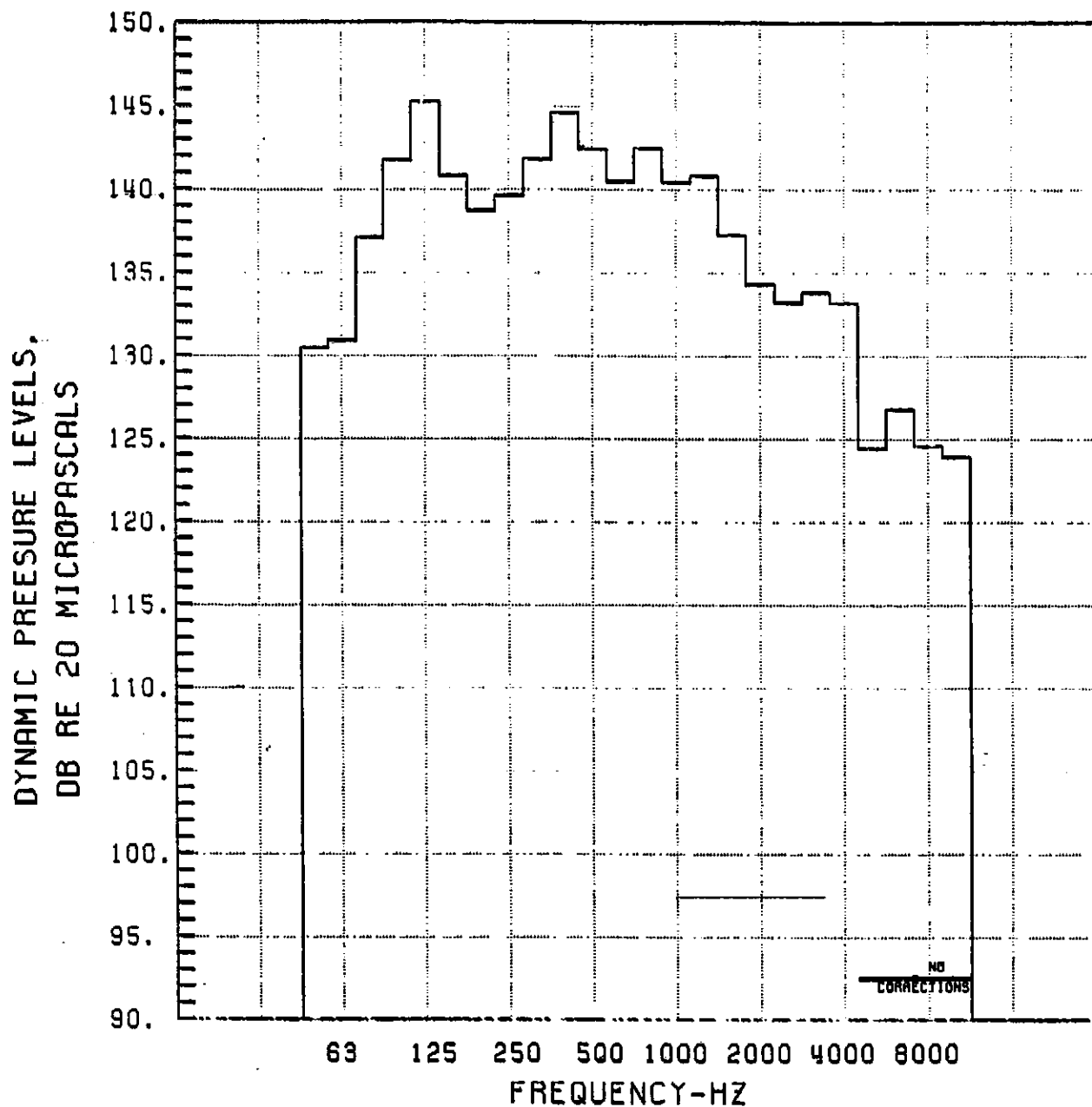
PROBE NUMBER: 5. GROUP NUMBER: IV

RUN NUMBER: 207



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED
INLET PRESS=446.9 KPA(64.8 PSIA), COMB EXIT TEMP=725.2 DEG C(1337.4 DEG F)
AIR FLOW= 6.26 KG/SEC(13.8 #/SEC), FUEL FLOW=310.4 KG/HR(684.3 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 6. GROUP NUMBER: IV RUN NUMBER: 207



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

INLET PRESS=446.9 KPA(64.8 PSIA), COMB EXIT TEMP=725.2 DEG C(1337.4 DEG F)

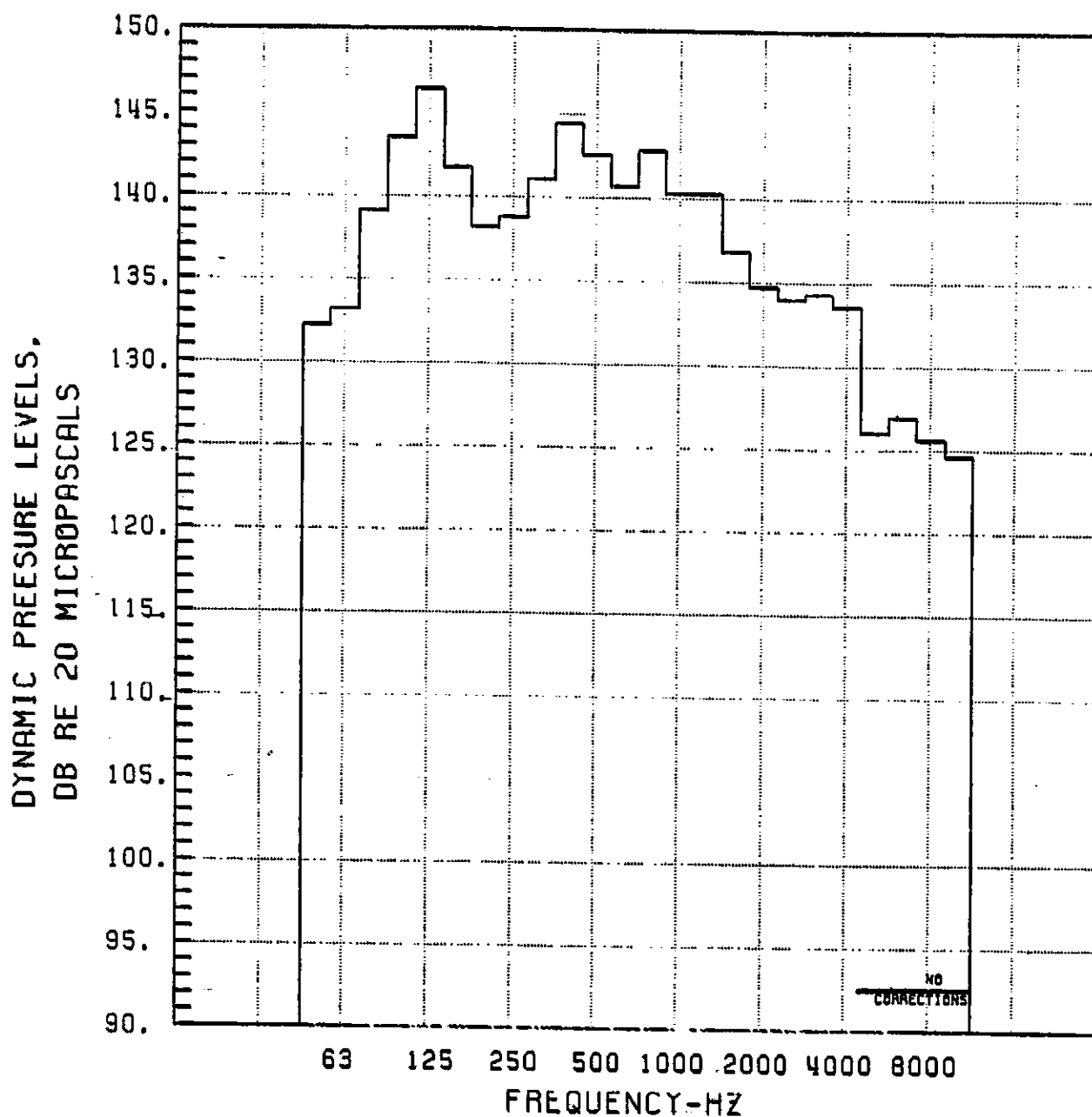
AIR FLOW= 6.26 KG/SEC(13.8 #/SEC), FUEL FLOW=310.4 KG/HR(684.3 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 7.

GROUP NUMBER: IV

RUN NUMBER: 207



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

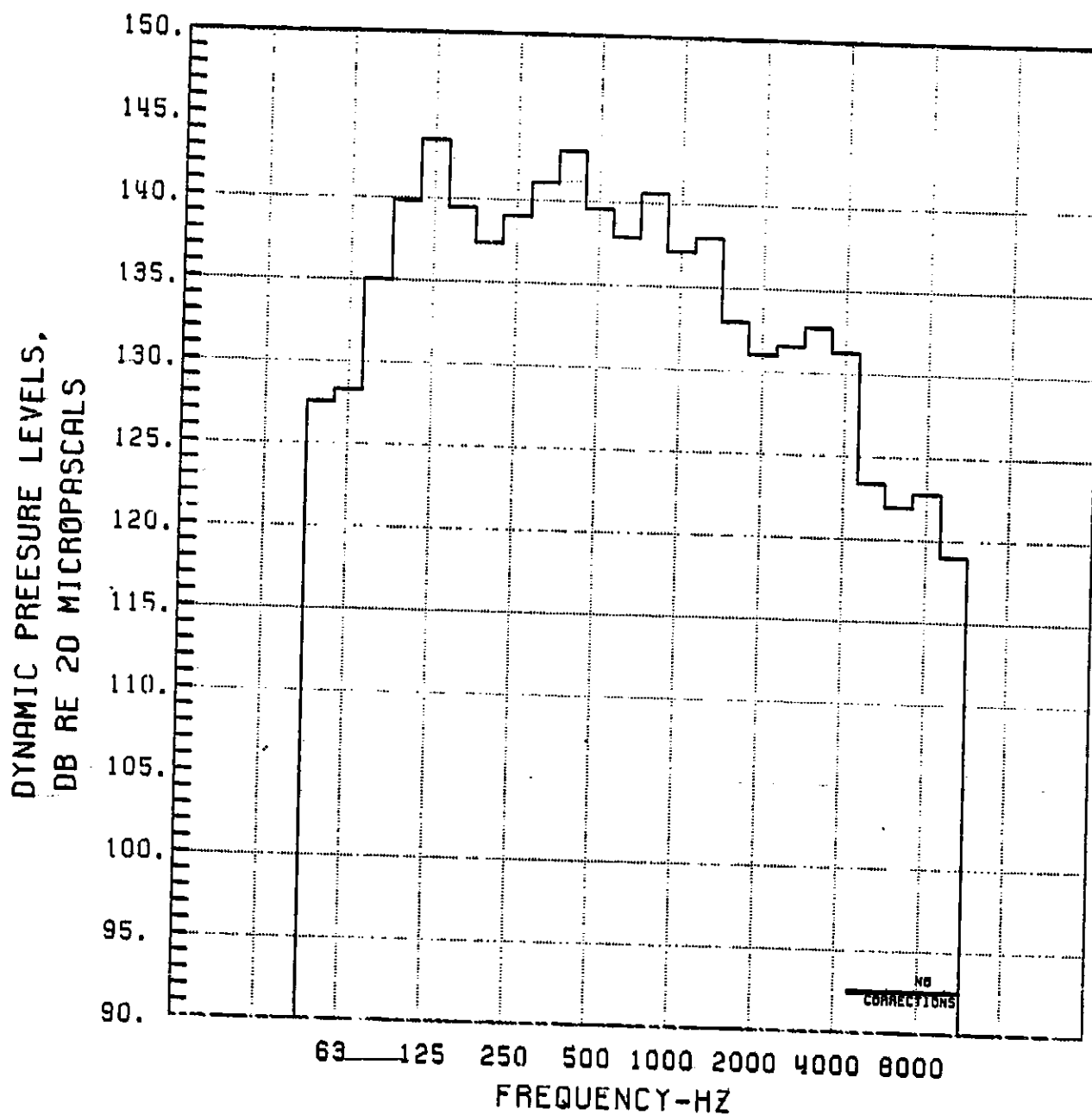
INLET PRESS=446.9 KPA(64.8 PSIA), COMB EXIT TEMP=725.2 DEG C(1337.4 DEG F)

AIR FLOW= 6.26 KG/SEC(13.8 #/SEC), FUEL FLOW=310.4 KG/HR(684.3 #/HR)

TEST DATE: FEB. 22, 1981

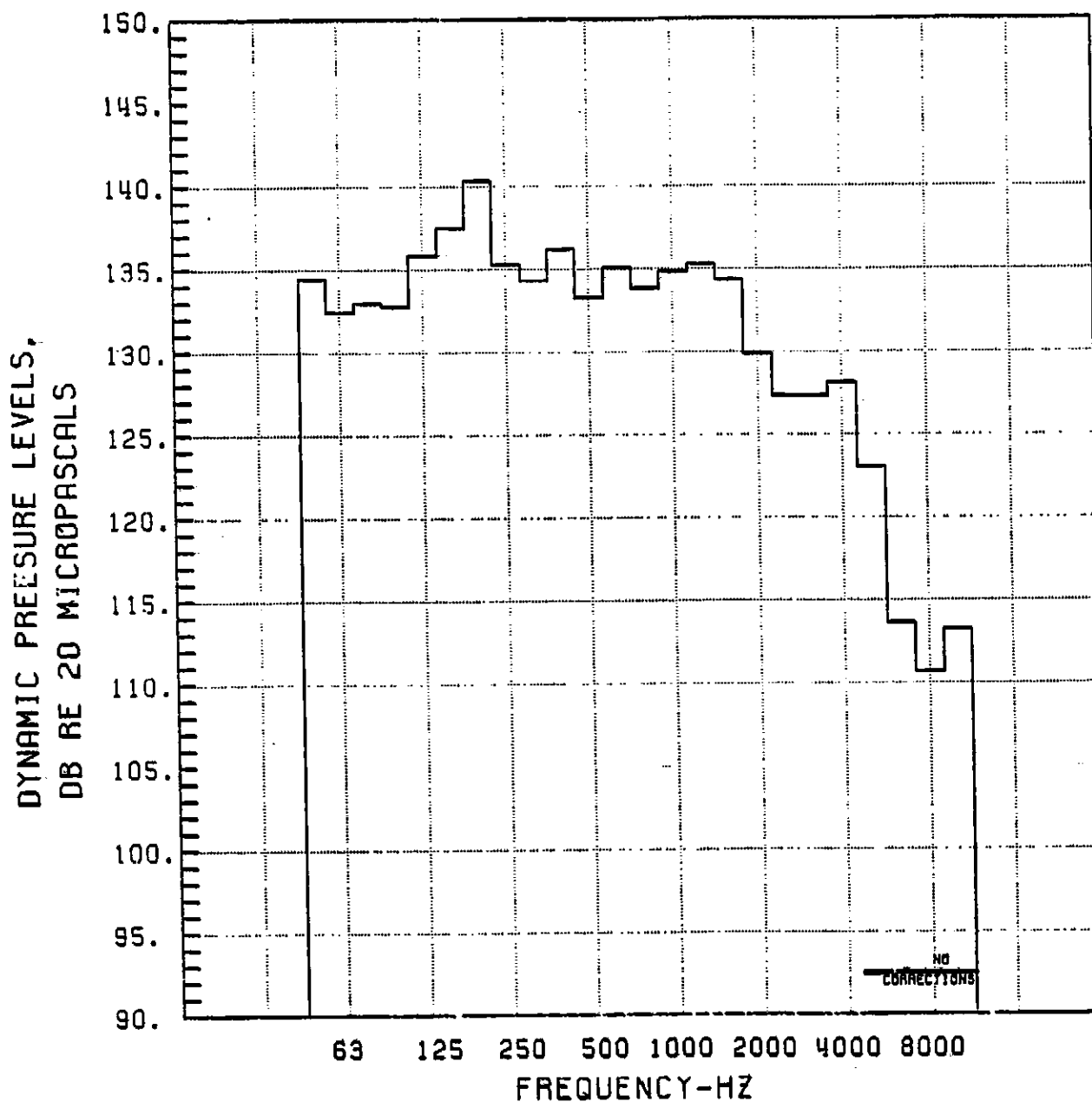
PROBE NUMBER: 8. GROUP NUMBER: IV

RUN NUMBER: 207



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED
INLET PRESS=446.9 KPA(64.8 PSIA), COMB EXIT TEMP=725.2 DEG C(1337.4 DEG F)
AIR FLOW= 6.26 KG/SEC(13.8 #/SEC), FUEL FLOW=310.4 KG/HR(684.3 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 9. GROUP NUMBER: IV RUN NUMBER: 207



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

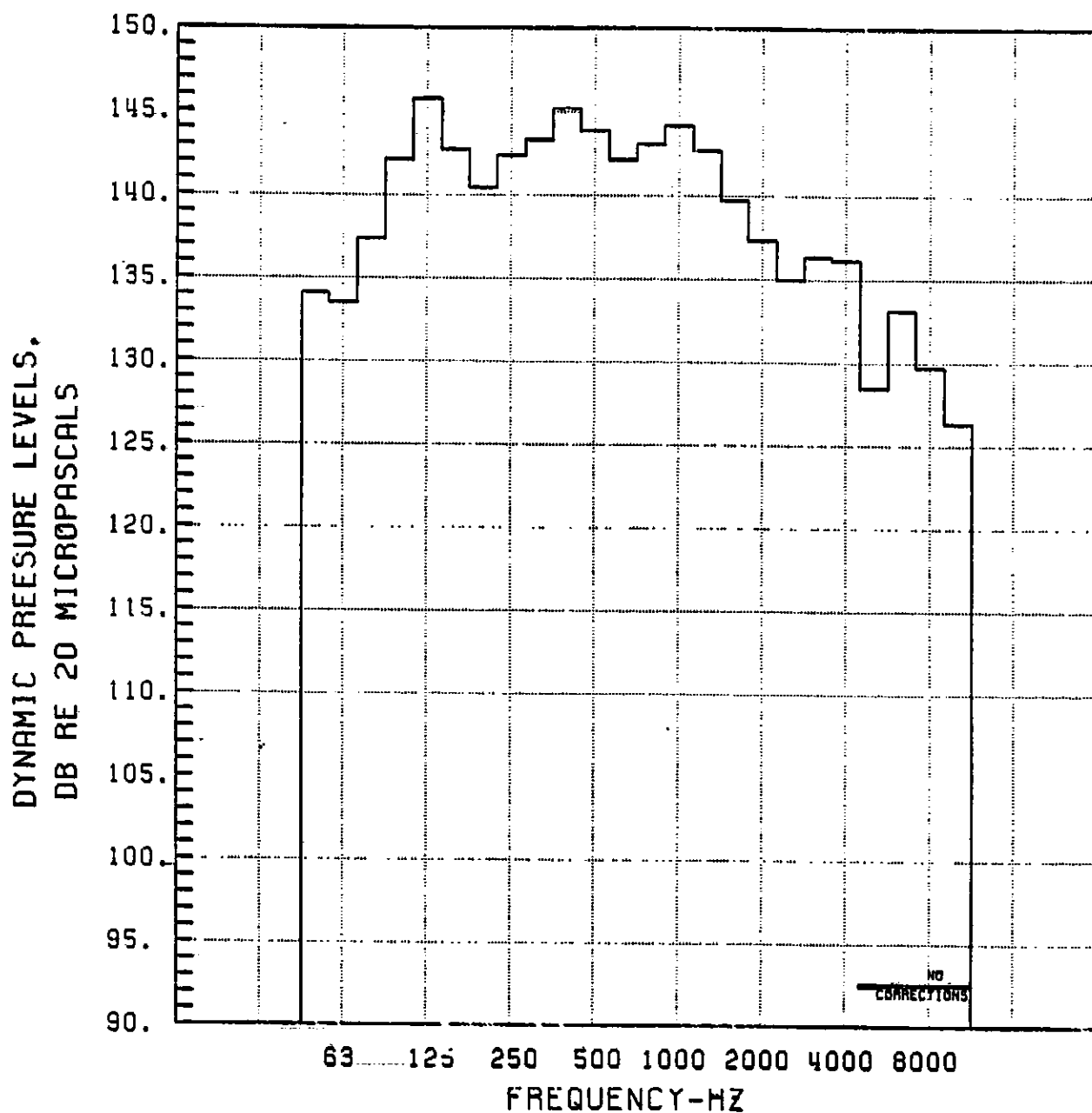
INLET PRESS=446.9 KPA(64.8 PSIA), COMB EXIT TEMP=725.2 DEG C(1337.4 DEG F)

AIR FLOW= 6.26 KG/SEC(13.8 */SEC), FUEL FLOW=310.4 KG/HR(684.3 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 10. GROUP NUMBER: IV

RUN NUMBER: 207



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

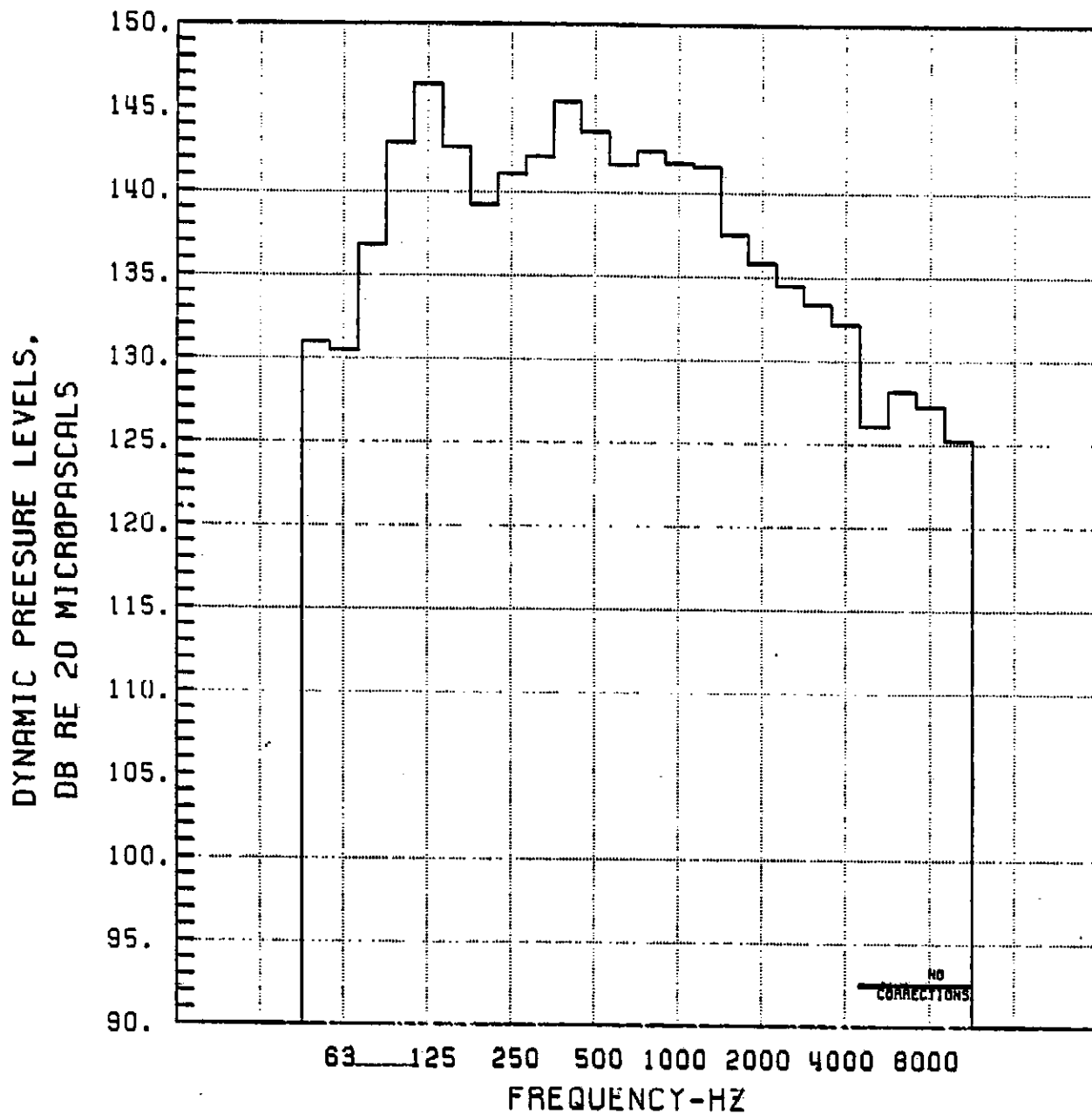
INLET PRESS=556.6 KPA(80.7 PSIA), COMB EXIT TEMP=829.3 DEG C(1524.7 DEG F)

AIR FLOW= 7.44 KG/SEC(16.4 #/SEC), FUEL FLOW=429.7 KG/HR(947.3 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 2. GROUP NUMBER: IV

RUN NUMBER: 210



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

INLET PRESS=556.6 KPA(80.7 PSIA), COMB EXIT TEMP=829.3 DEG C(1524.7 DEG F)

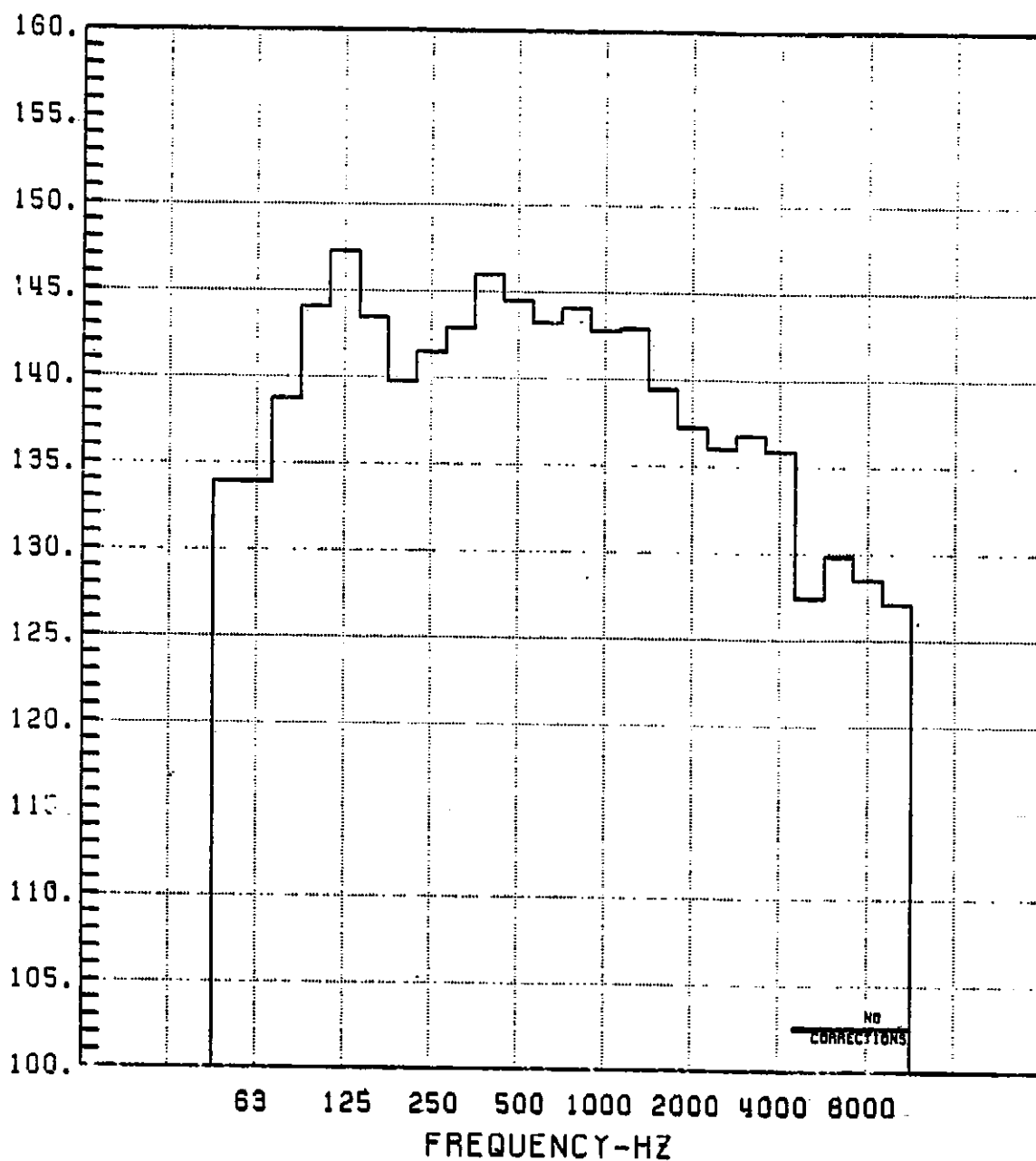
AIR FLOW= 7.44 KG/SEC(16.4 #/SEC), FUEL FLOW=429.7 KG/HR(947.3 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 3. GROUP NUMBER: IV

RUN NUMBER: 210

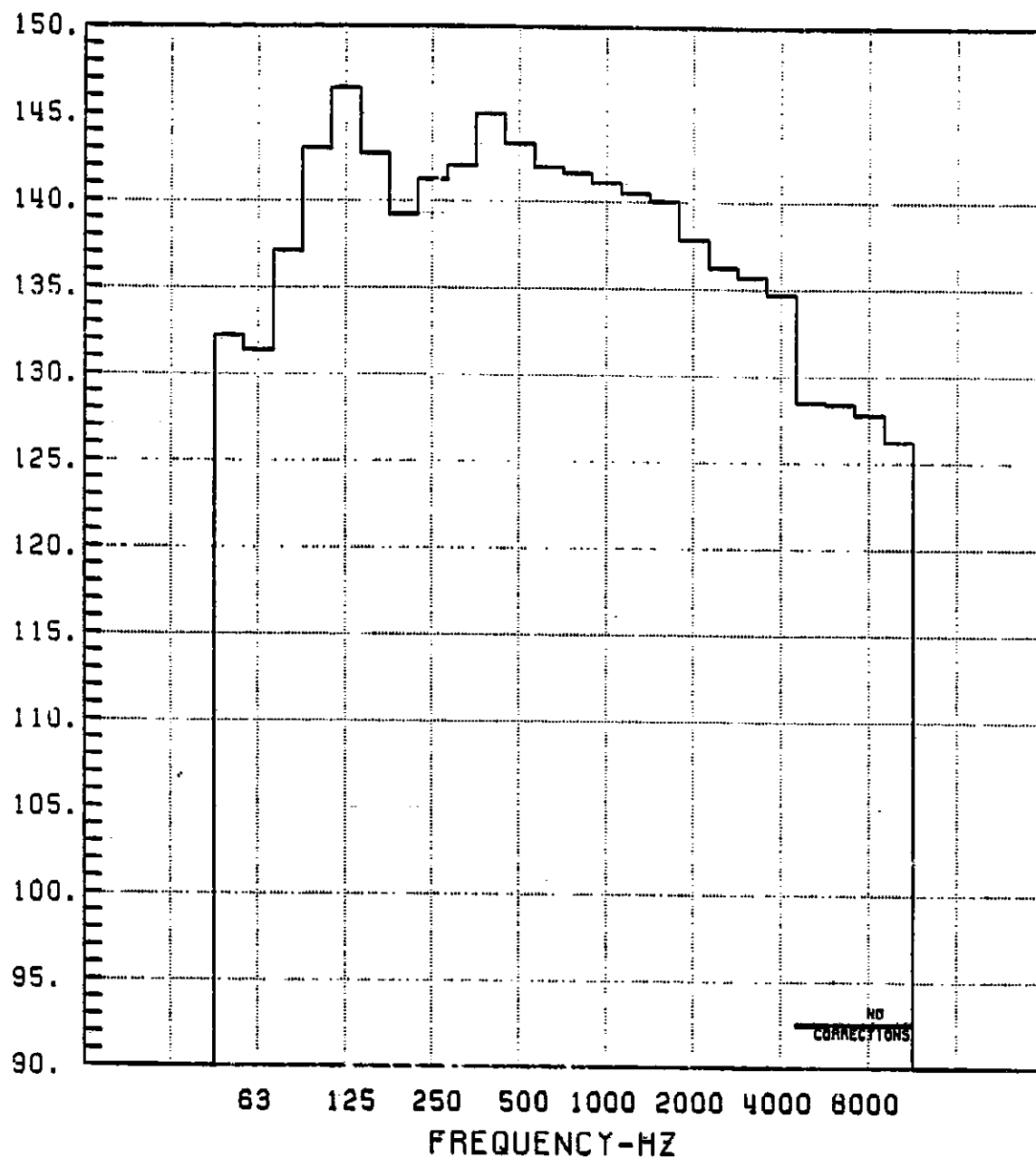
DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED
INLET PRESS=556.6 KPA(80.7 PSIA), COMB EXIT TEMP=829.3 DEG C(1524.7 DEG F)
AIR FLOW= 7.44 KG/SEC(16.4 */SEC), FUEL FLOW=429.7 KG/HR(947.3 */HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 4. GROUP NUMBER: IV RUN NUMBER: 210

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

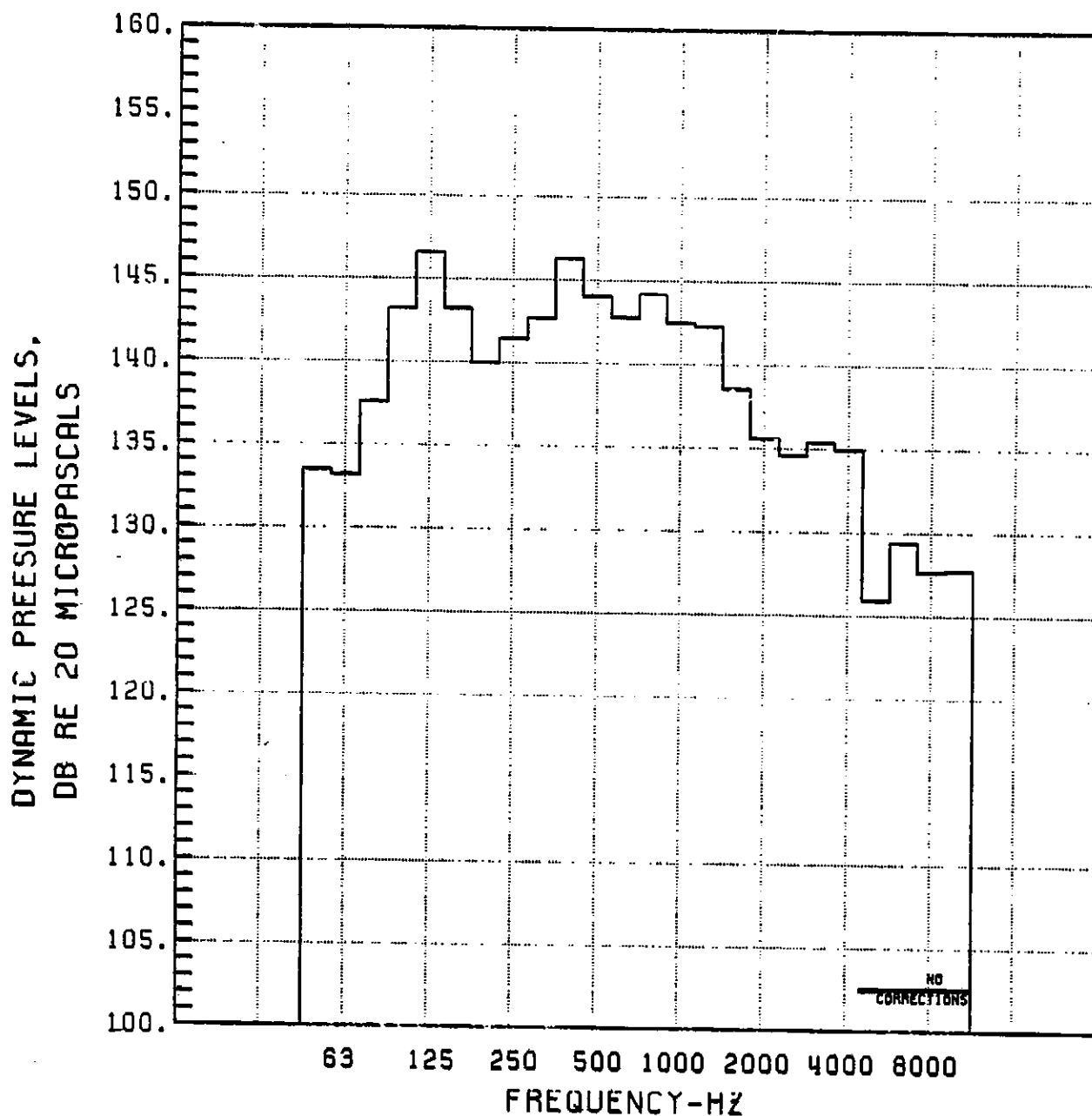
INLET PRESS=556.6 KPA(80.7 PSIA), COMB EXIT TEMP=829.3 DEG C(1524.7 DEG F)

AIR FLOW= 7.44 KG/SEC(16.4 #/SEC), FUEL FLOW=429.7 KG/HR(947.3 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 5. GROUP NUMBER: IV

RUN NUMBER: 210



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

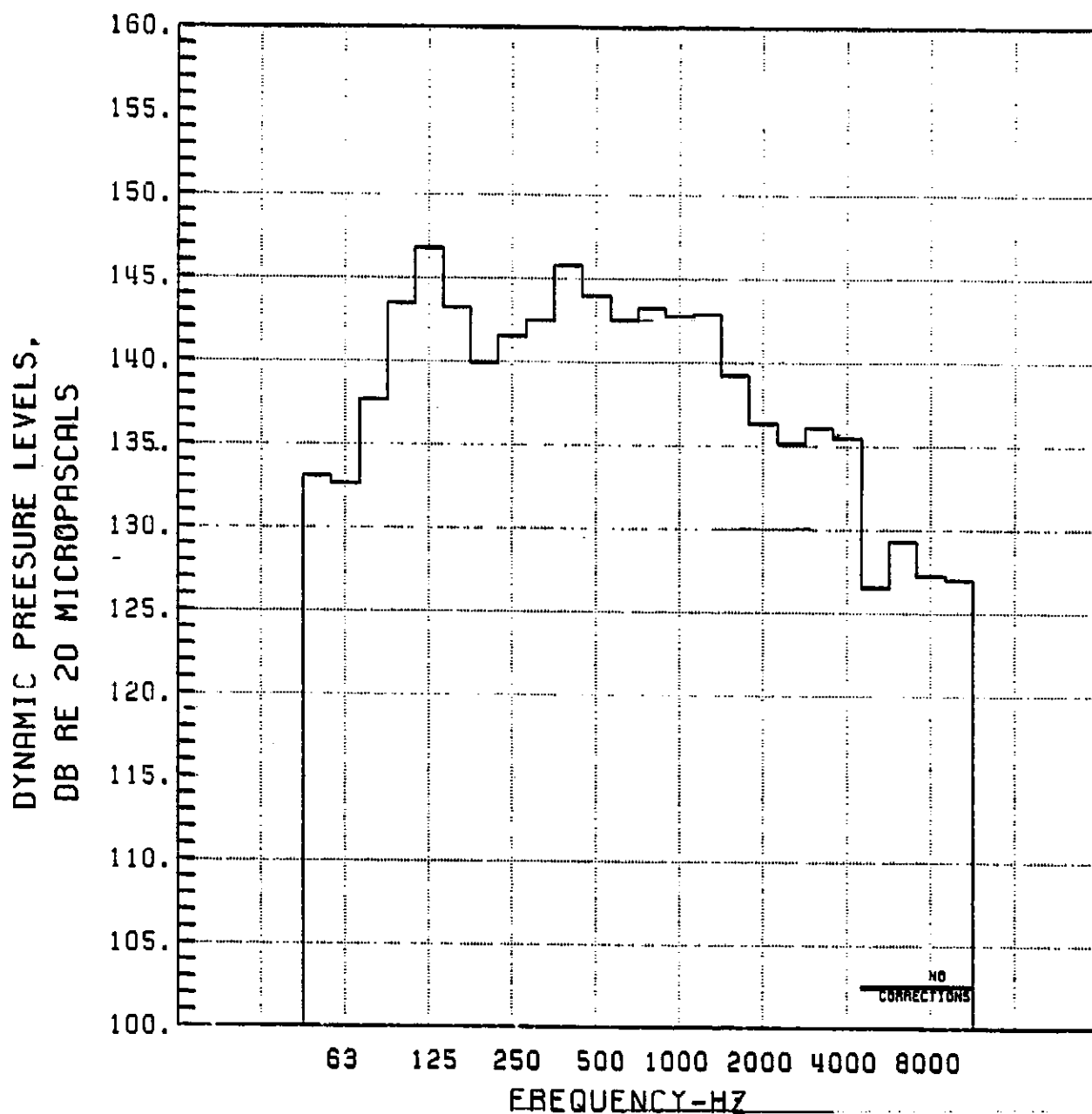
INLET PRESS=556.6 KPA(80.7 PSIA), COMB EXIT TEMP=829.3 DEG C(1524.7 DEG F)

AIR FLOW= 7.44 KG/SEC(16.4 */SEC), FUEL FLOW=429.7 KG/HR(947.3 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: G. GROUP NUMBER: IV

RUN NUMBER: 210



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

INLET PRESS=556.6 KPA(80.7 PSIA), COMB EXIT TEMP=829.3 DEG C(1524.7 DEG F)

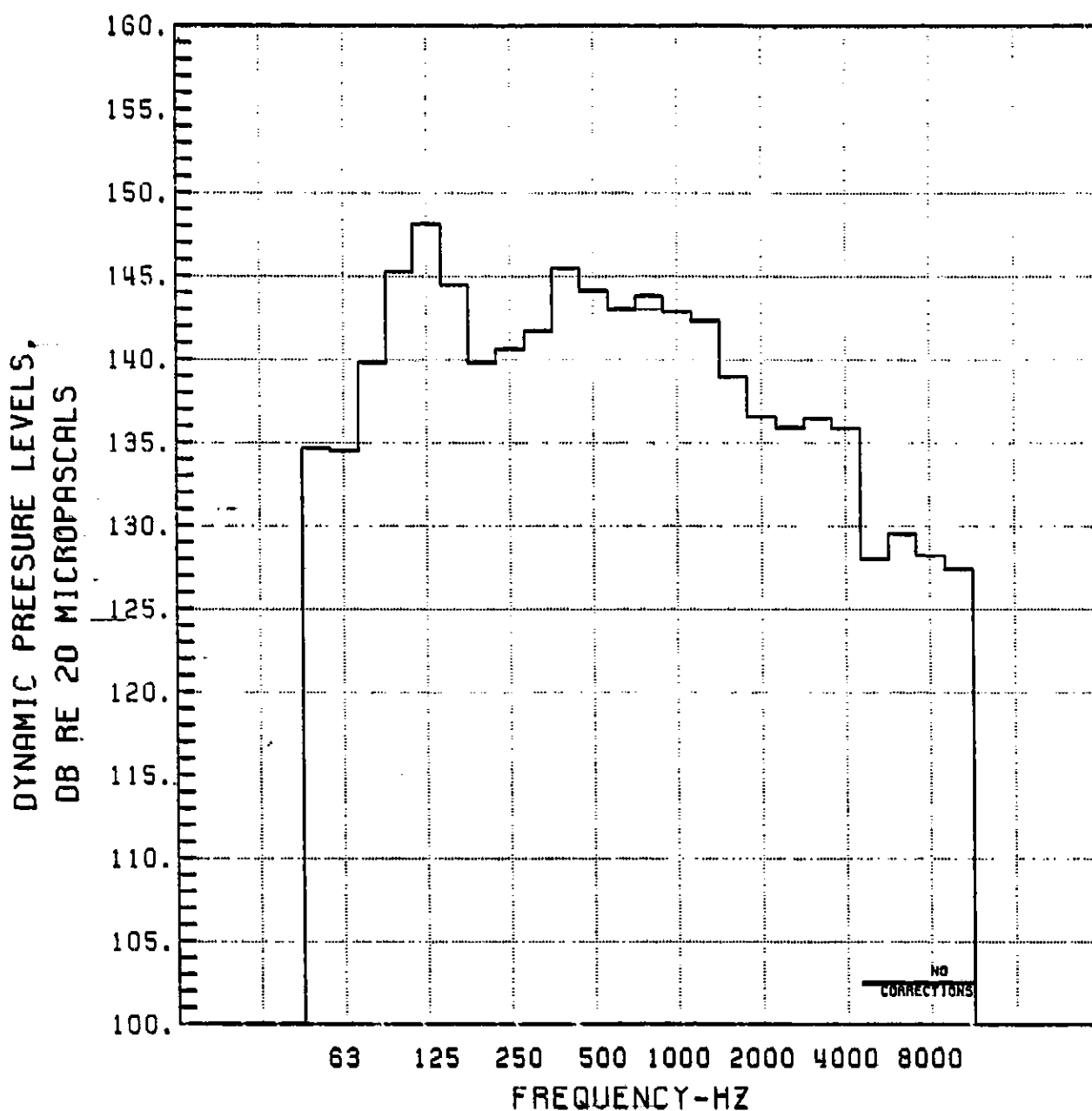
AIR FLOW= 7.44 KG/SEC(16.4 #/SEC), FUEL FLOW=429.7 KG/HR(947.3 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 7.

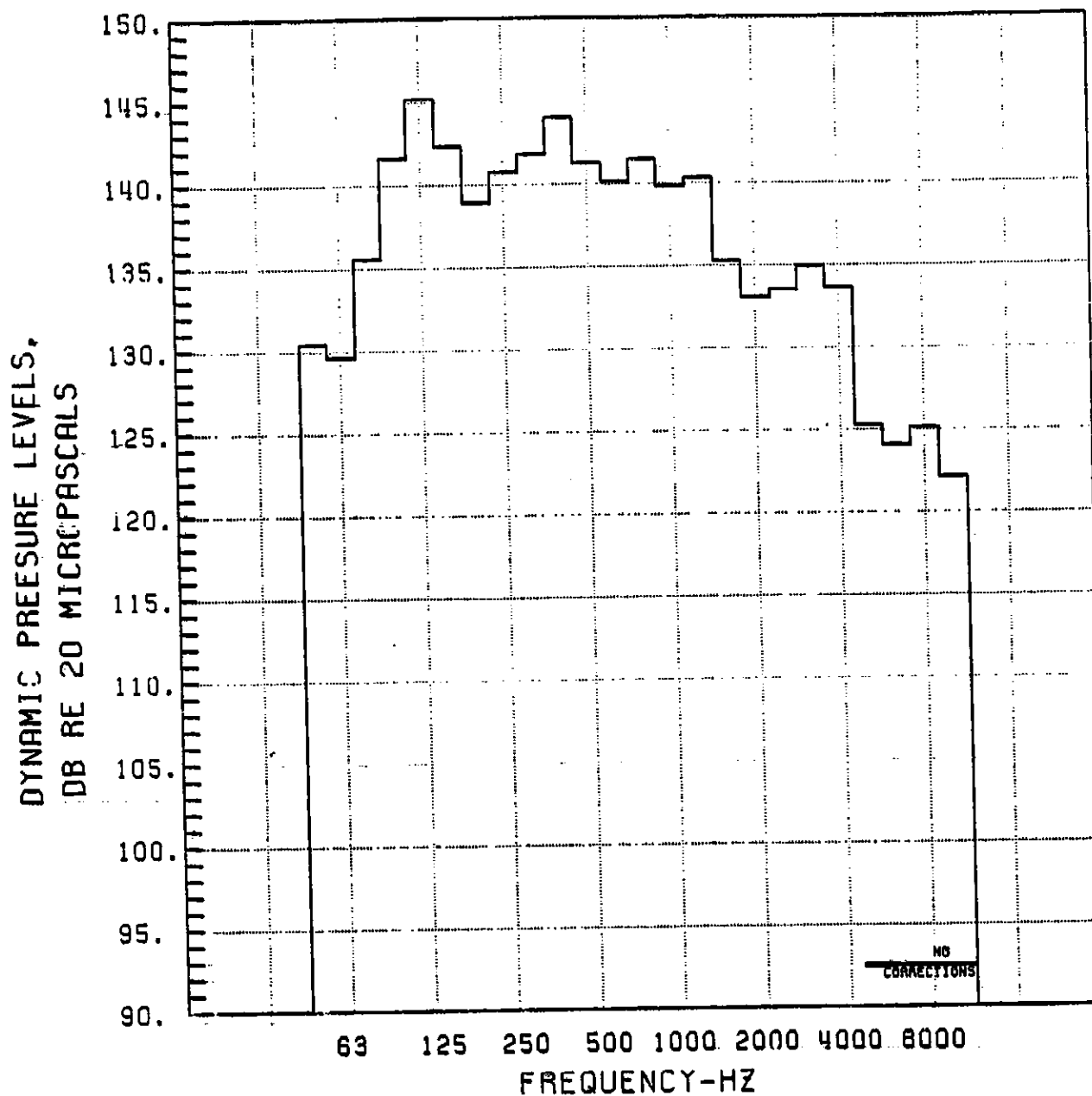
GROUP NUMBER: IV

RUN NUMBER: 210



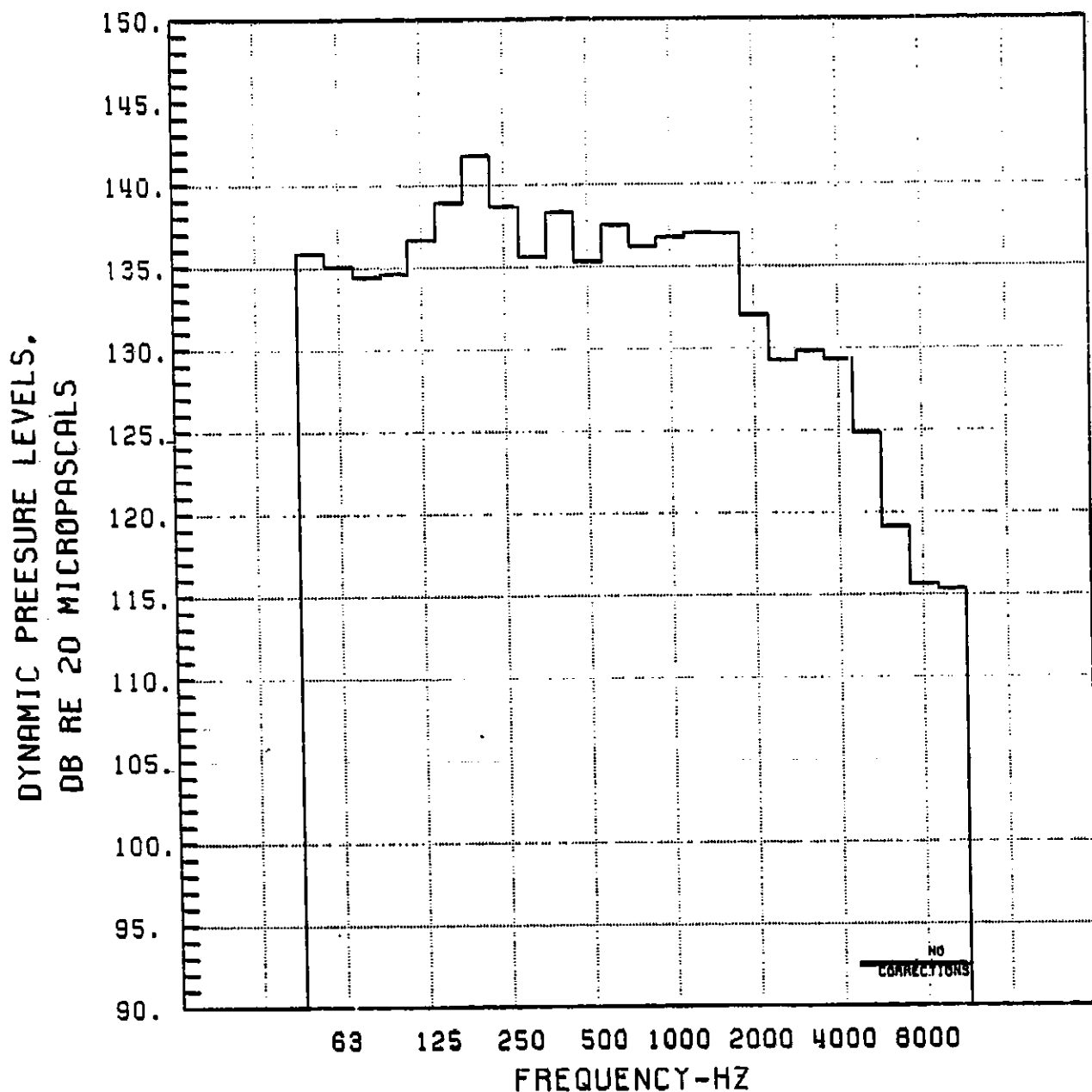
AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED
INLET PRESS=556.6 KPA(80.7 PSIA), COMB EXIT TEMP=829.3 DEG C(1524.7 DEG F)
AIR FLOW= 7.44 KG/SEC(16.4 #/SEC), FUEL FLOW=429.7 KG/HR(947.3 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 8. GROUP NUMBER: IV RUN NUMBER: 210



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS
FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED
INLET PRESS=556.6 KPA(80.7 PSIA), COMB EXIT TEMP=829.3 DEG C(1524.7 DEG F,
AIR FLOW= 7.44 KG/SEC(16.4 #/SEC), FUEL FLOW=429.7 KG/HR(947.3 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 9. GROUP NUMBER: IV RUN NUMBER: 210



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 TURBOFAN ENGINE OPERATING POINTS

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

INLET PRESS=558.6 KPA(80.7 PSIA), COMB EXIT TEMP=829.3 DEG C(1524.7 DEG F)

AIR FLOW= 7.44 KG/SEC(16.4 */SEC), FUEL FLOW=429.7 KG/HR(947.3 */HR)

TEST DATE: FEB. 22, 1981

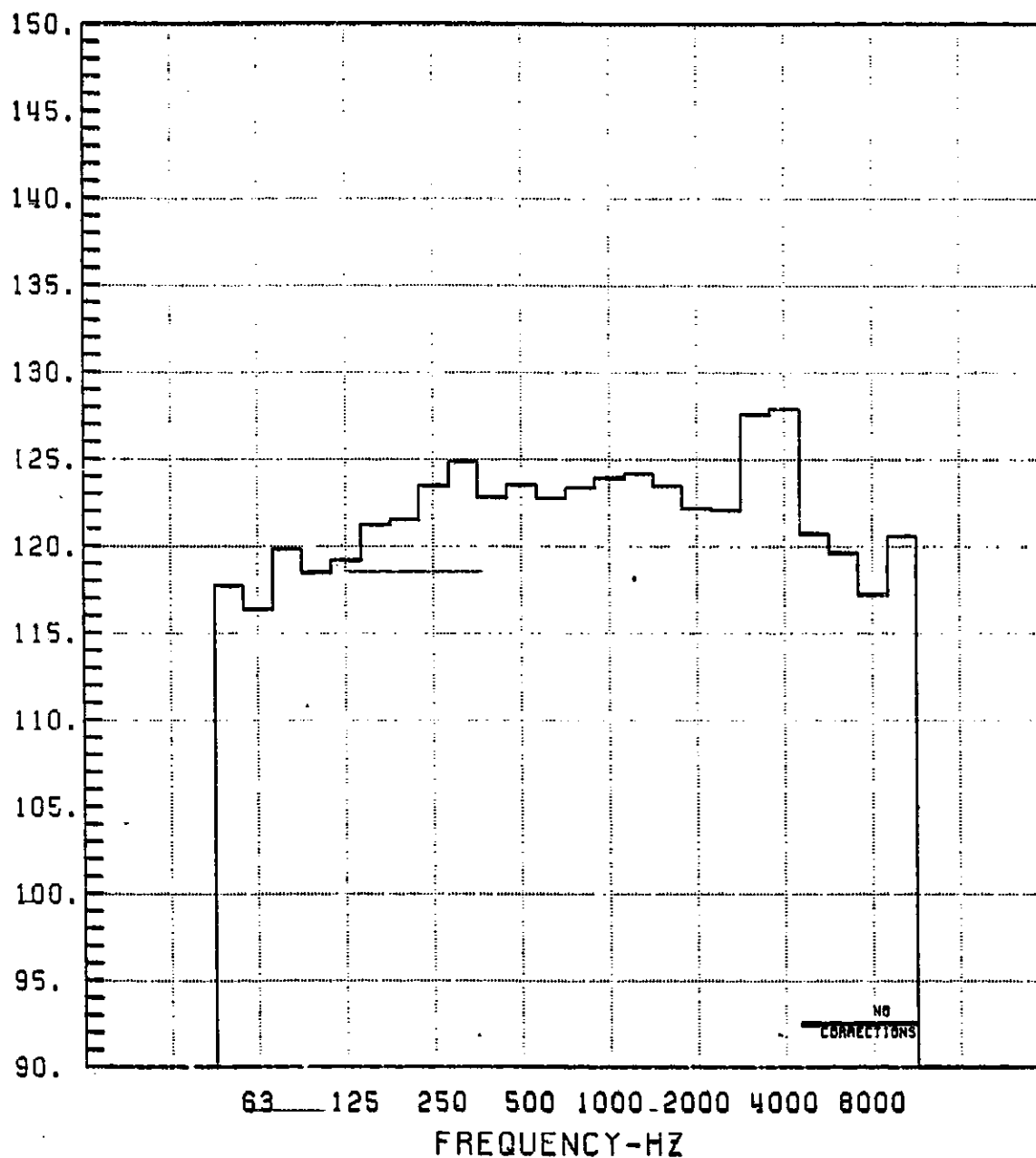
PROBE NUMBER: 10. GROUP NUMBER: IV

RUN NUMBER: 210

APPENDIX B

GROUP V

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 ZERO FUEL FLOW CONDITION

FIRST STAGE TURBINE NOZZLE GUIDE VONES REMOVED

INLET PRESS=372.6 KPA(54.0 PSIA), COMB EXIT TEMP=170.6 DEG C(339.2 DEG F)

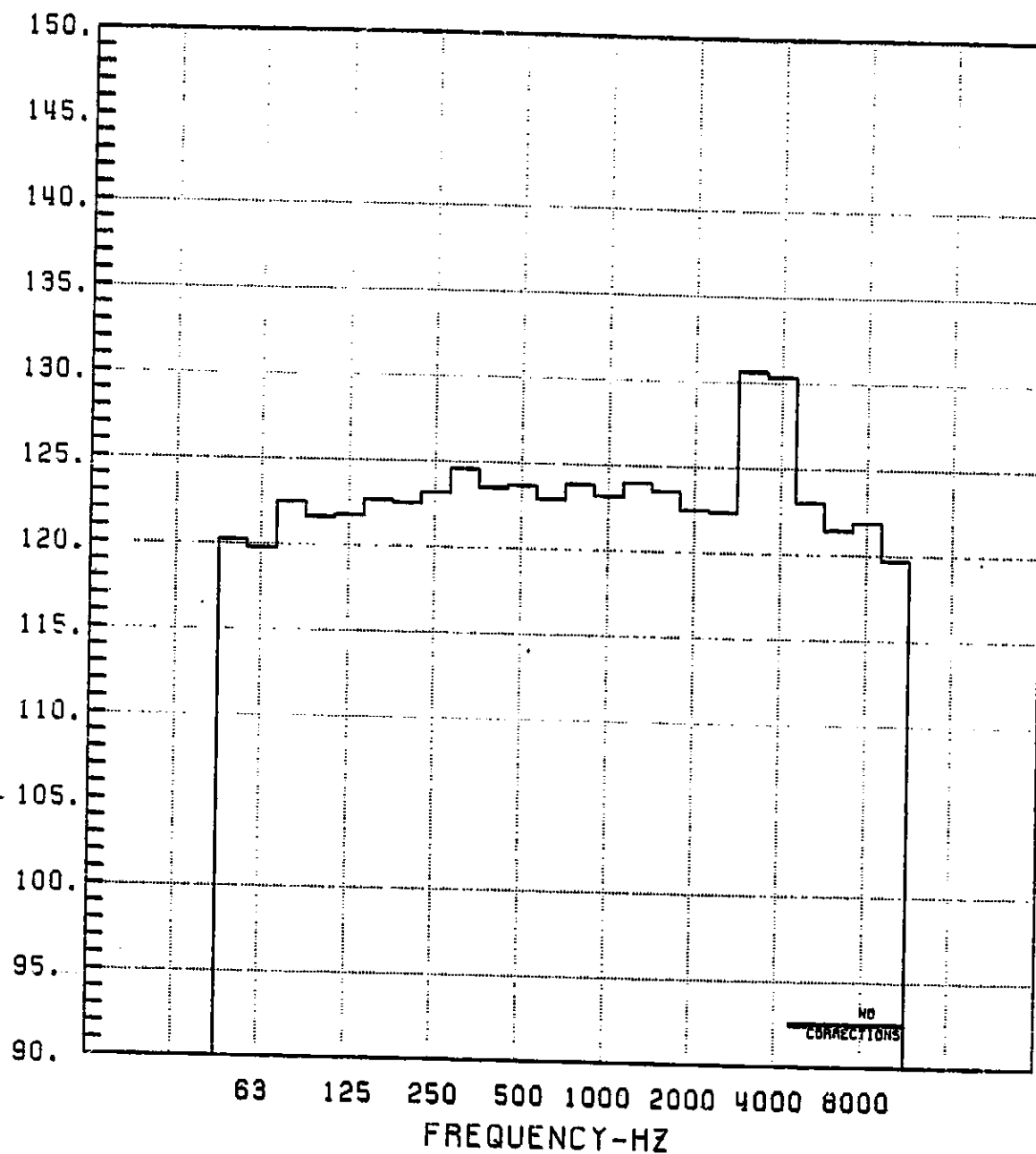
AIR FLOW= 5.04 KG/SEC(11.12#/SEC), FUEL FLOW= 0.0 KG/HR(0.0 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 2. GROUP NUMBER: V

RUN NUMBER: 205

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 ZERO FUEL FLOW CONDITION

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

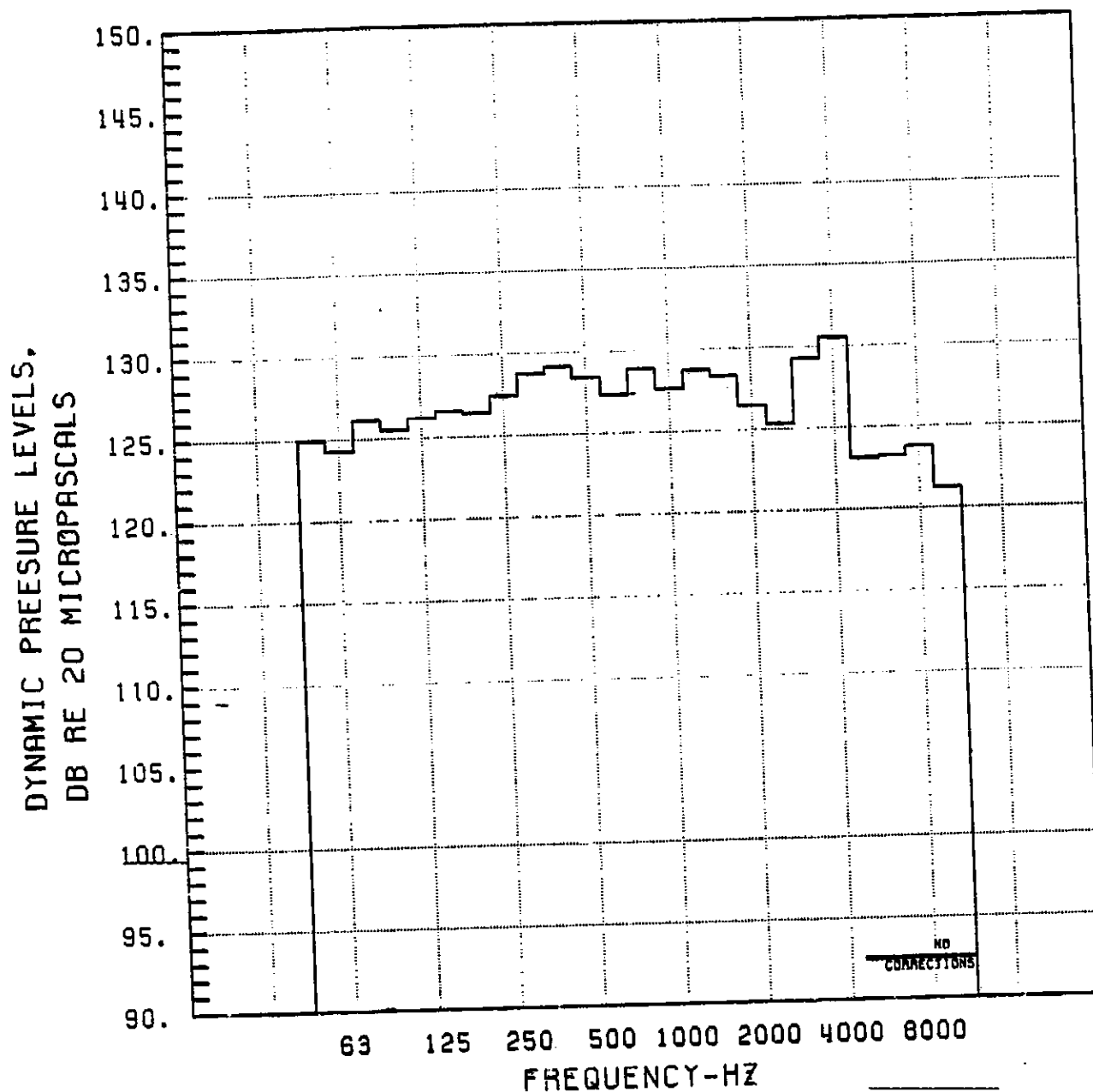
INLET PRESS=372.6 KPA(54.0 PSIA), COMB EXIT TEMP=170.6 DEG C(339.2 DEG F)

AIR FLOW= 5.04 KG/SEC(11.12*/SEC), FUEL FLOW= 0.0 KG/HR(0.0 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 3. GROUP NUMBER: V

RUN NUMBER: 205



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 ZERO FUEL FLOW CONDITION

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

INLET PRESS=372.6 KPA(54.0 PSIA), COMB EXIT TEMP=170.6 DEG C(339.2 DEG F)

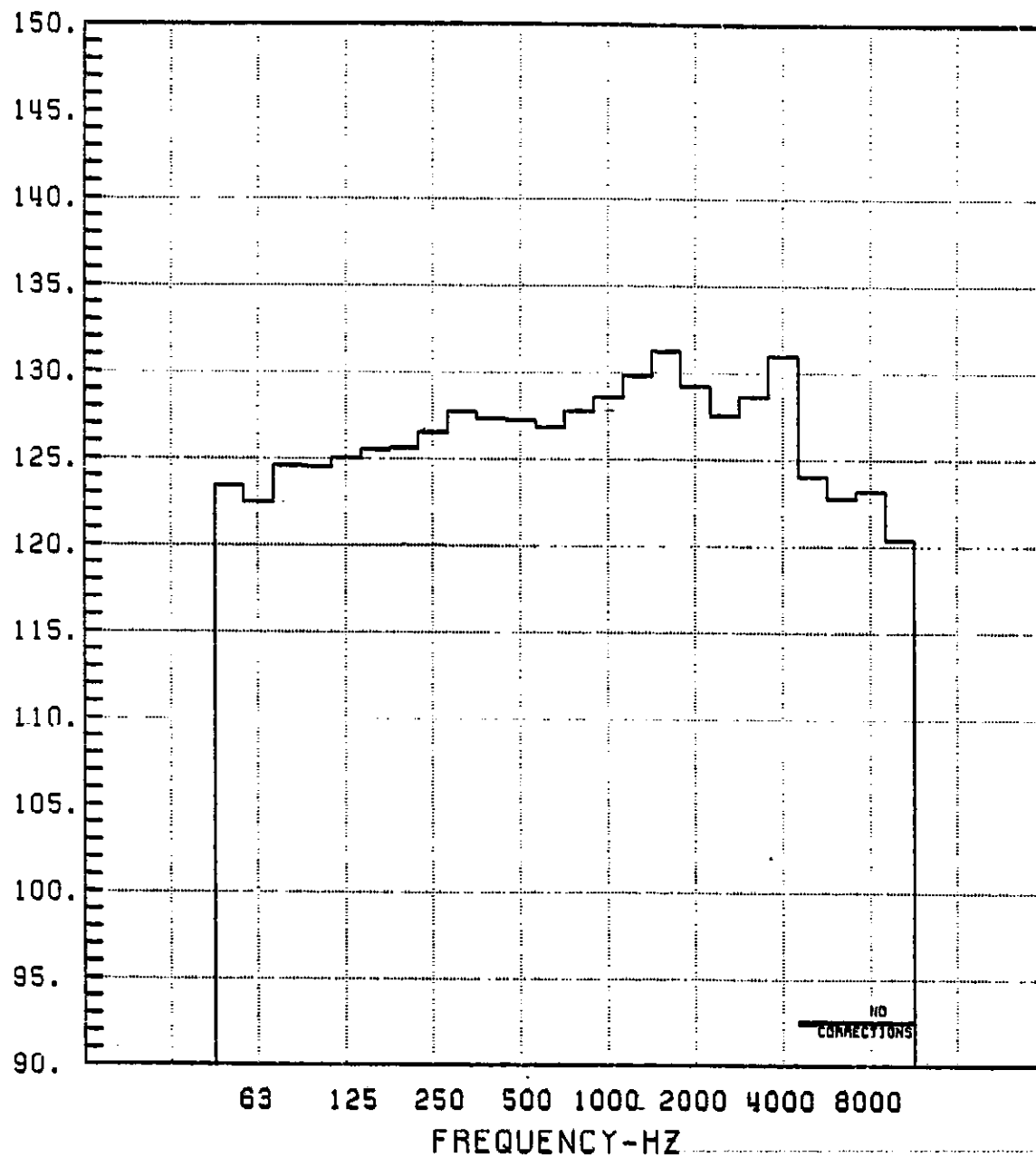
AIR FLOW= 5.04 KG/SEC(11.12*/SEC), FUEL FLOW= 0.0 KG/HR(0.0 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 4. GROUP NUMBER: V

RUN NUMBER: 205

DYNAMIC PRESSURE LEVELS,
DB RE 20 MICROPASCALS



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 ZERO FUEL FLOW CONDITION

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

INLET PRESS=372.6 KPA(54.0 PSIA), COMB EXIT TEMP=170.6 DEG C(339.2 DEG F)

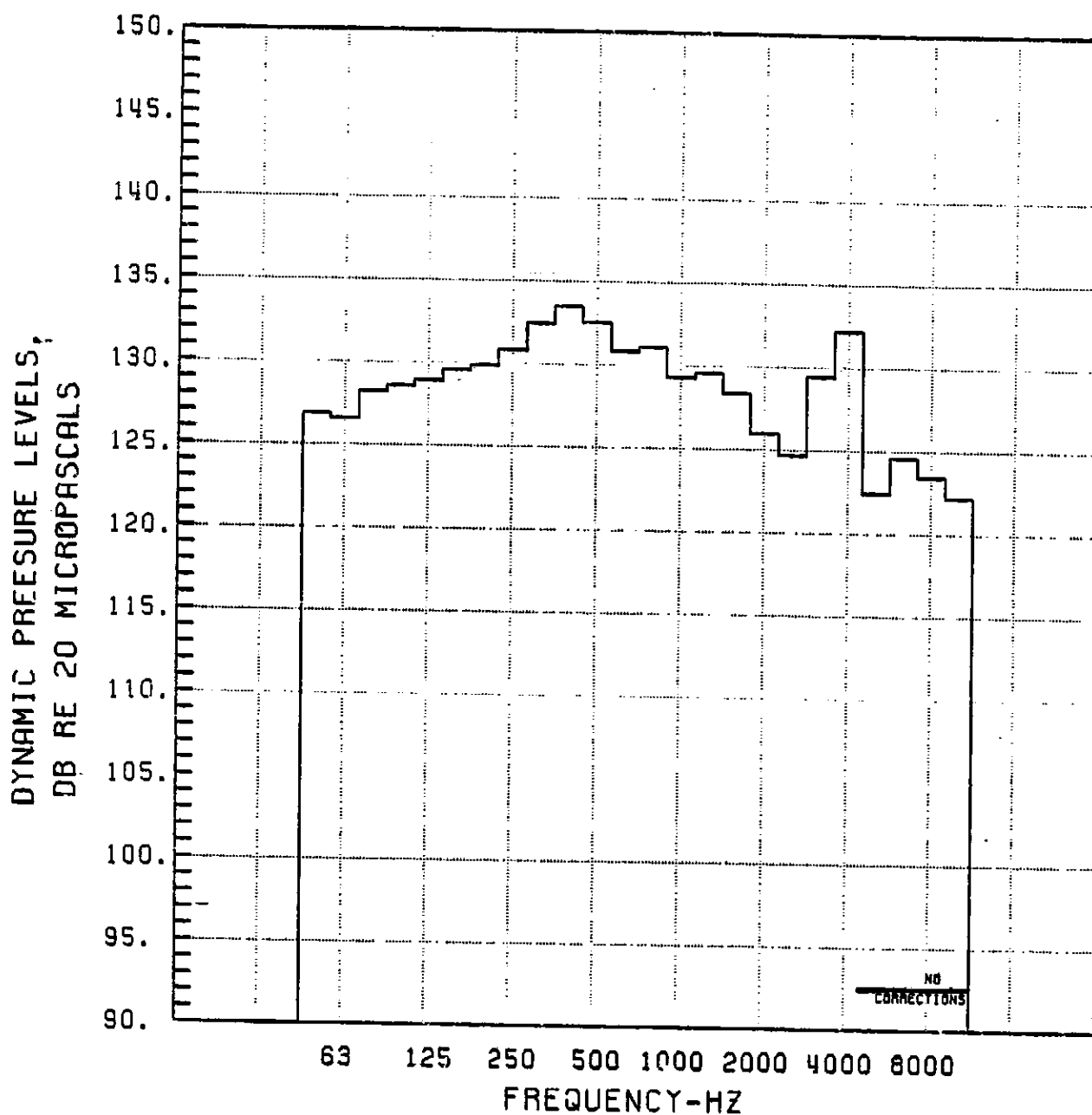
AIR FLOW= 5.04 KG/SEC(11.12*/SEC), FUEL FLOW= 0.0 KG/HR(0.0 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 5.

GROUP NUMBER: V

RUN NUMBER: 205



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 ZERO FUEL FLOW CONDITION

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

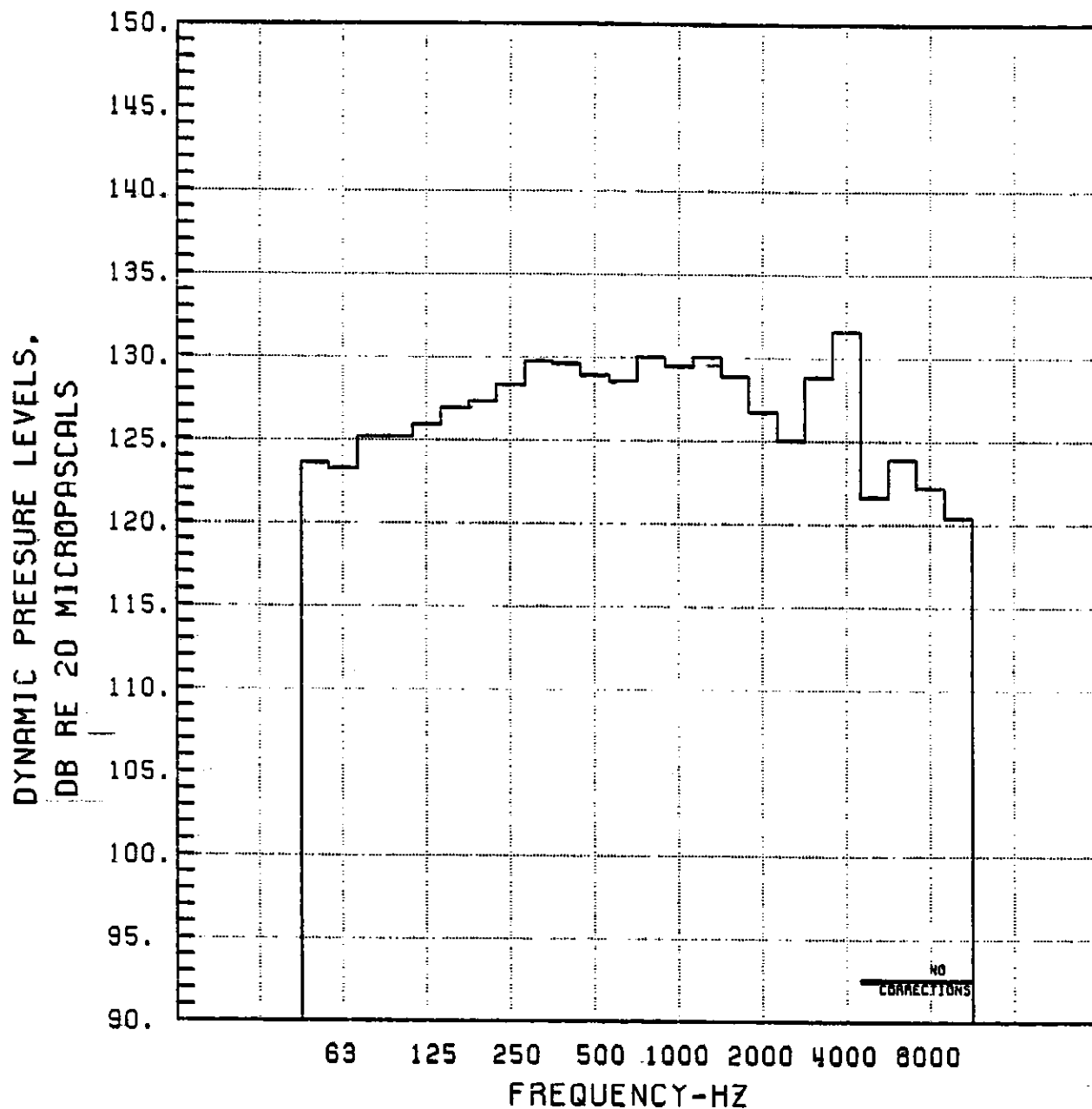
INLET PRESS=372.6 KPA(54.0 PSIA), COMB EXIT TEMP=170.6 DEG C (339.2 DEG F)

AIR FLOW= 5.04 KG/SEC(11.12*/SEC), FUEL FLOW= 0.0 KG/HR(0.0 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 6. GROUP NUMBER: V

RUN NUMBER: 205



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 ZERO FUEL FLOW CONDITION

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

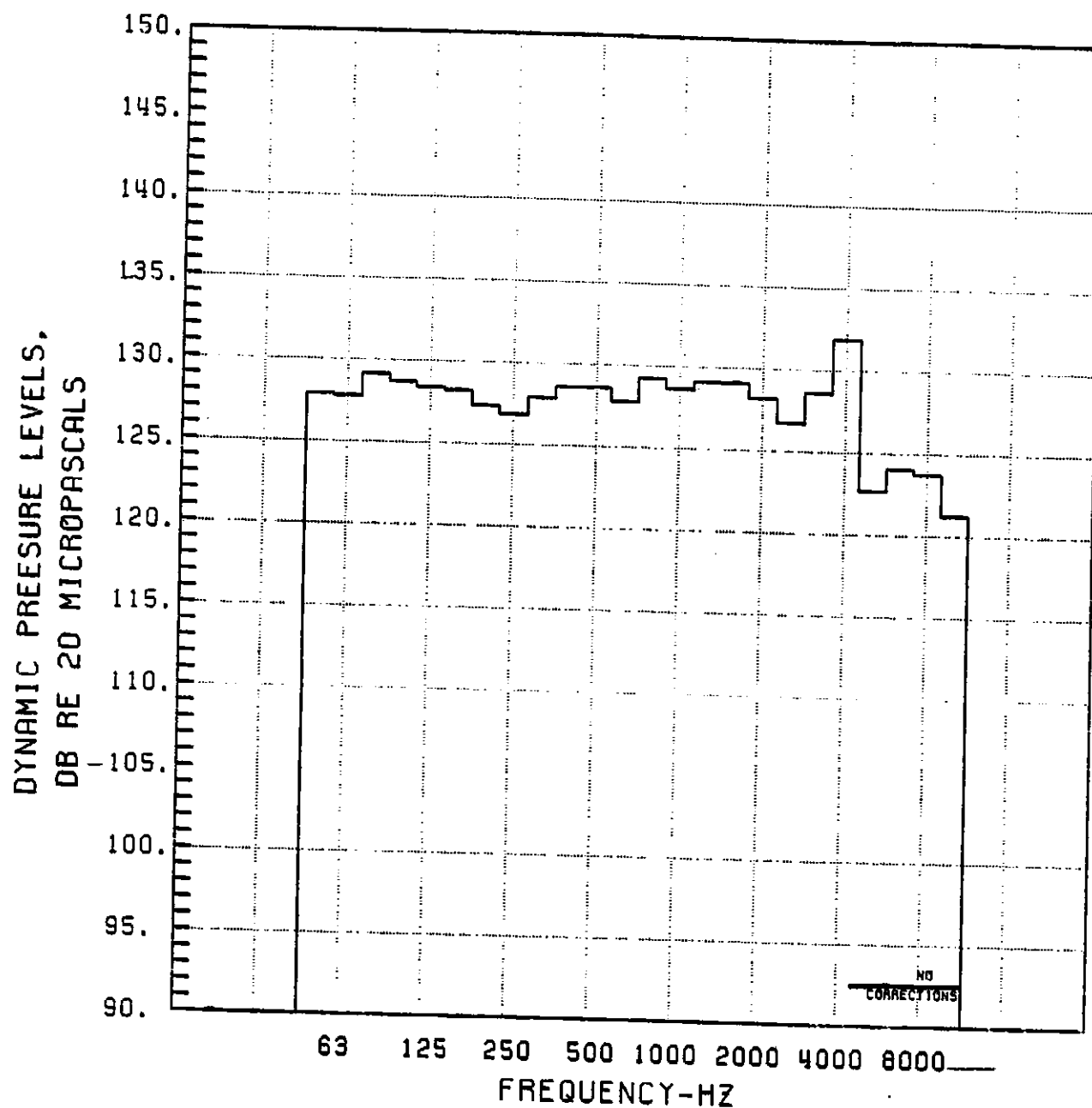
INLET PRESS=372.6 KPA(54.0 PSIA), COMB EXIT TEMP=170.6 DEG C(339.2 DEG F)

AIR FLOW= 5.04 KG/SEC(11.12#/SEC), FUEL FLOW= 0.0 KG/HR(0.0 #/HR)

TEST DATE: FEB. 22, 1981

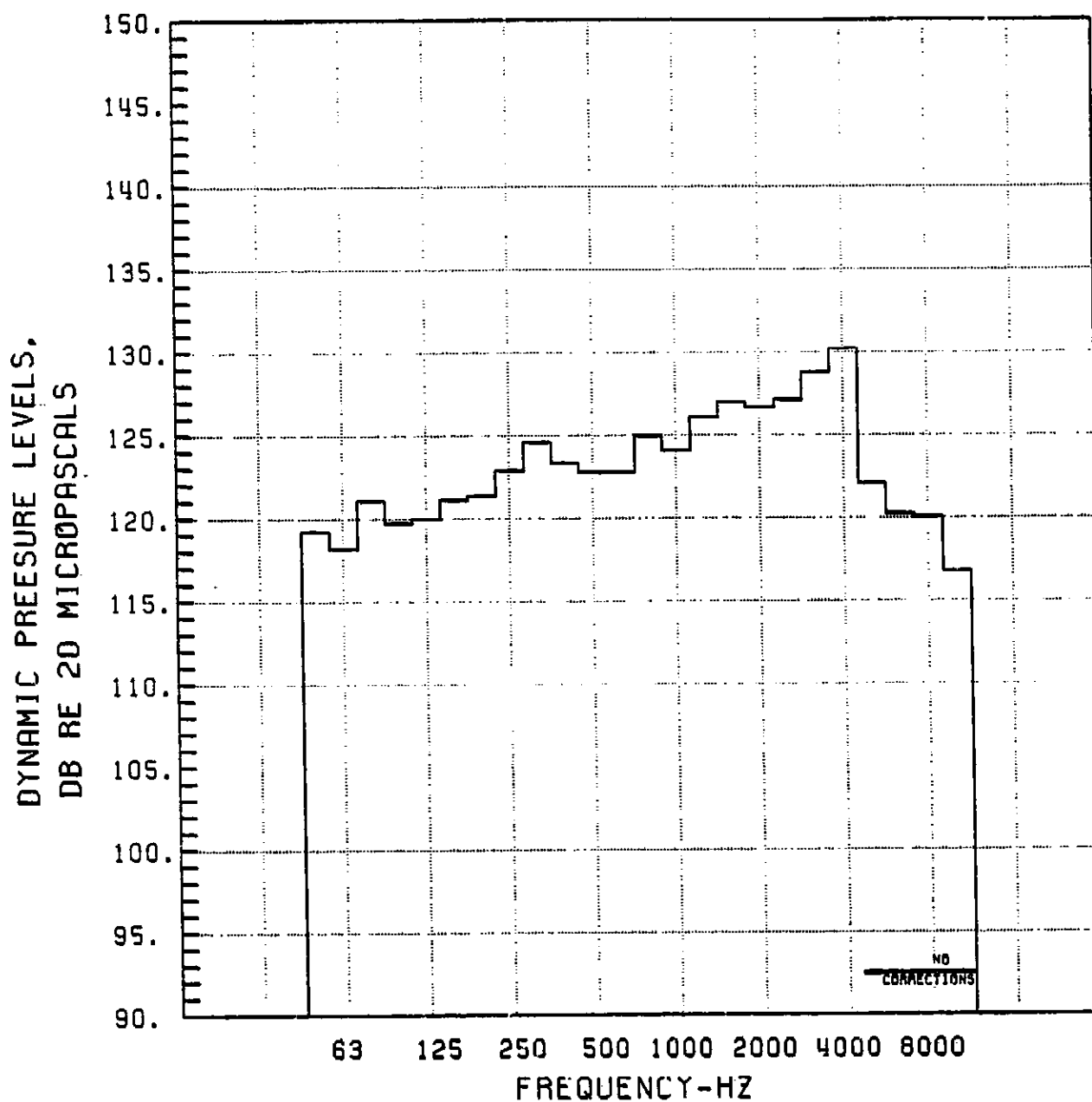
PROBE NUMBER: 7. GROUP NUMBER: V

RUN NUMBER: 205



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 ZERO FUEL FLOW CONDITION
FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED
INLET PRESS=372.6 KPA(54.0 PSIA), COMB EXIT TEMP=170.6 DEG C(339.2 DEG F)
AIR FLOW= 5.04 KG/SEC(11.12#/SEC), FUEL FLOW= 0.0 KG/HR(0.0 #/HR)
TEST DATE: FEB. 22, 1981
PROBE NUMBER: 8. GROUP NUMBER: V RUN NUMBER: 205



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: YF-102 ZERO FUEL FLOW CONDITION

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

INLET PRESS=372.6 KPA(54.0 PSIA), COMB EXIT TEMP=170.6 DEG C(339.2 DEG F)

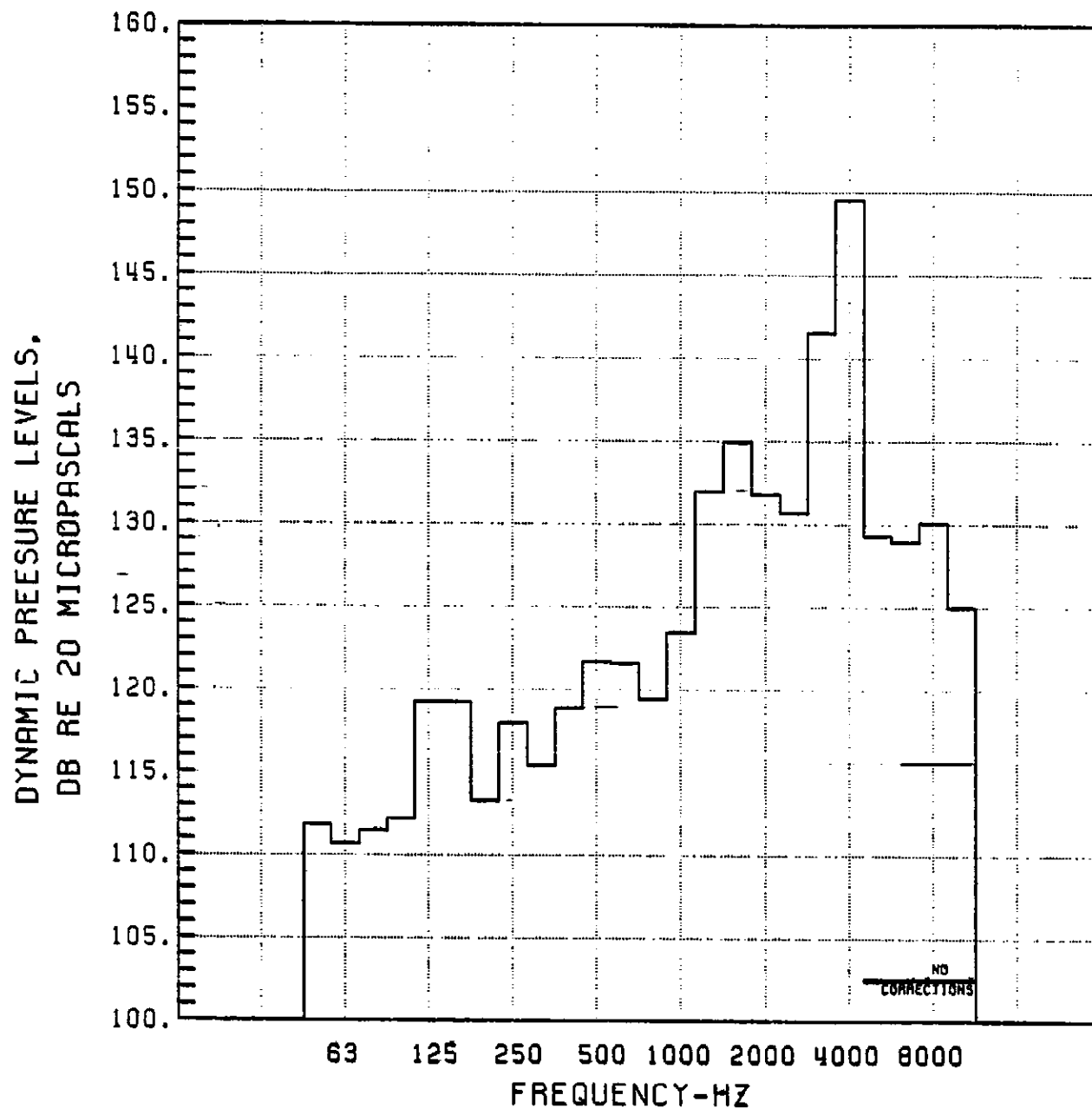
AIR FLOW= 5.04 KG/SEC(11.12*/SEC), FUEL FLOW= 0.0 KG/HR(0.0 */HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 9.

GROUP NUMBER: V

RUN NUMBER: 205



AVCO-LYCOMING DIVISION
550 SOUTH MAIN ST., STRATFORD, CONN. 06497
ONE THIRD OCTAVE BAND ANALYSIS

TITLE: TF-102 ZERO FUEL FLOW CONDITION

FIRST STAGE TURBINE NOZZLE GUIDE VANES REMOVED

INLET PRESS=372.6 KPA(54.0 PSIA), COMB EXIT TEMP=170.6 DEG C(339.2 DEG F)

AIR FLOW= 5.04 KG/SEC(11.12#/SEC), FUEL FLOW= 0.0 KG/HR(0.0 #/HR)

TEST DATE: FEB. 22, 1981

PROBE NUMBER: 10. GROUP NUMBER: V

RUN NUMBER: 205